

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
8 November 2001 (08.11.2001)

PCT

(10) International Publication Number  
**WO 01/84444 A1**

(51) International Patent Classification<sup>7</sup>: **G06F 17/60**

Jagdish, D. [IN/US]; 7941 Crestway Drive, #710, Indianapolis, IN 46236 (US). MILLIKAN, Mark, D. [US/US]; 11208 Moss Drive, Carmel, IN 46033 (US).

(21) International Application Number: PCT/US01/14209

(74) Agent: NIEDNAGEL, Timothy, E.; Bose McKinney & Evans LLP, 2700 First Indiana Plaza, 135 North Pennsylvania Street, Indianapolis, IN 46204 (US).

(22) International Filing Date: 2 May 2001 (02.05.2001)

(81) Designated States (*national*): CA, US.

(25) Filing Language: English

(84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

(26) Publication Language: English

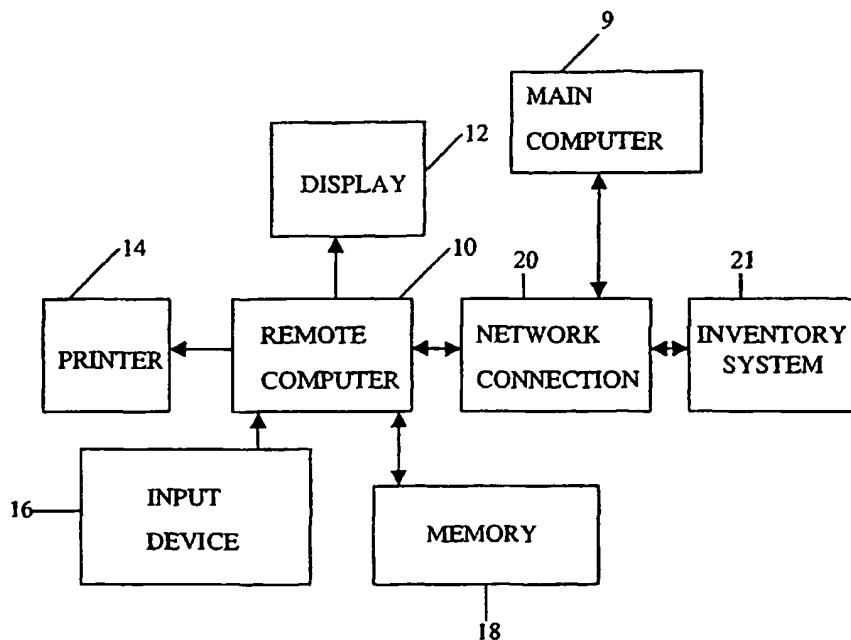
(71) Applicant (*for all designated States except US*): Published:  
COMEDEX, INC. [US/US]; 9001 Wesleyan Road,  
Suite 100, Indianapolis, IN 46268 (US). — *with international search report*

(72) Inventors; and

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(75) Inventors/Applicants (*for US only*): KULKARNI,

(54) Title: MEDICAL PRODUCT SELECTION APPARATUS



(57) Abstract: A medical product selection apparatus comprises a computer (9, 10), a display (12) coupled to the computer (9, 10), and an input device (16) coupled to the computer (9, 10). The input device (16) is configured to permit a user to input at least one selected symptom for which a medical product is desired. The apparatus also includes a memory (18) coupled to the computer (9, 10) to store information related to a plurality of medical products. Each of the medical products is linked to at least one symptom. The computer (9, 10) is programmed to generate a list from the stored information and display the list on the display (12). The list includes all of the medical products stored in the memory (18) which are used for treating a selected condition.

**WO 01/84444 A1**

## MEDICAL PRODUCT SELECTION APPARATUS

### Related Application

This application claims the benefit of provisional application Serial  
5 No. 60/201,204, filed May 2, 2000, which is hereby incorporated herein by reference.

### Background and Summary of the Invention

Consumers spend a large amount of money – nearly \$40 billion worldwide in 1998 – on non-prescription drugs. In recent years many formerly 10 prescription drugs have dropped to non-prescription status primarily due to managed care economics. In addition, demand for other alternatives to prescription drugs and physician's visits, such as herbal remedies, vitamins and diagnostic self-tests, has increased.

The present invention relates to a medical product selection apparatus.  
15 More particularly, the present invention provides a computer system which presents an individual with a list of available drugs and medical products for treatment of a selected condition and symptoms and information related to the listed products, so that the individual can quickly compare the available products and choose products that best fit his or her particular needs.

20 The present invention contains several variables that describe nonprescription drug and other medical products and organizes the information so that the user may compare products on the basis of these variables. The present invention supports the user's decision process by displaying the comparison of all of the variables and drug products for examination in a single viewing.

25 The present invention also may be integrated with a vendor's inventory system so that price, availability, and store location information are automatically included in the product data made available to users. The ability to interface with inventory systems enables the apparatus of the present invention to keep price and availability data, which frequently fluctuate, up to date.

30 The present invention also may be integrated with a vendor's e-commerce applications to allow users to use the selection apparatus and obtain product information before placing an online order.

In an illustrated embodiment of the present invention, a medical product selection apparatus comprises a computer, a display coupled to the computer, and an input device coupled to the computer. The input device is configured to permit a user to input at least one selected symptom for which a medical product is desired.

- 5 The apparatus also includes a memory coupled to the computer, the memory being configured to store information related to a plurality of medical products for treating selected symptoms, and means for generating and displaying a list from the stored information. The list includes all of the medical products stored in the memory which are used for treating a selected condition.

10 In another illustrated embodiment, a medical product selection apparatus comprises a computer, a display coupled to the computer, and an input device coupled to the computer. The input device is configured to permit a user to input at least one selected symptom for which a medical product is desired. The apparatus also includes a memory coupled to the computer. The memory is 15 configured to store information related to a plurality of medical products, each of the medical products being linked to at least one symptom. The computer is also programmed to generate a list from the stored information and display the list on the display, the list including all of the medical products stored in the memory which are used for treating a selected condition.

20 Illustratively, the plurality of medical products includes at least one of non-prescription drugs, herbal products, nutrition supplements, vitamins, diagnostic tests, and medical devices. In one illustrated embodiment, the computer is configured to compare the medical products on the generated list with medical products available in an inventory of a vendor.

25 In yet another illustrated embodiment, a medical product information system operable over a communication network comprises a first computer coupled to the communications network, and an input device coupled to the first computer. The input device is configured to permit a user to input at least one selected symptom for which a medical product is desired. The system also includes a memory coupled to the first computer. The memory is configured to store information related to a 30 plurality of medical products. Each of the medical products is linked to at least one symptom. The first computer is programmed to generate a list of medical products

from the stored information based on the selected symptom. The system further includes a second computer coupled to the communications network and configured to provide inventory information to the first computer for the at least one medical product via the communications network.

5           In another embodiment, the system further comprises a third computer coupled to the communication network and configured to provide information related to the plurality of medical products to the first computer.

Additional features of the invention will become apparent to those skilled in the art upon consideration of the following detailed description of the  
10 illustrated embodiment exemplifying the best mode of carrying out the invention as presently perceived.

#### Brief Description of the Drawings

The detailed description particularly refers to the accompanying figures  
15 in which:

Fig. 1 is a block diagram illustrating the hardware of the product selection apparatus of the present invention;

Fig. 2a is a flow chart illustrating the steps performed by the apparatus in one embodiment of the present invention for providing a consumer with a  
20 comparison table listing all available drug products for treatment of selected conditions and symptoms;

Fig. 2b is a flow chart illustrating the steps performed by the apparatus of the present invention for providing a consumer with information on drugs or other medical products;

25           Fig. 3 is a block diagram further illustrating the steps performed by the computer during generation of the table of drug or medical products in one embodiment of the present invention;

Fig. 4 illustrates an opening screen display for the medical product selection apparatus of the present invention;

30           Fig. 5 illustrates a screen display which permits the consumer to select the category of medical product desired;

Fig. 6 is another illustrative screen display which permits the consumer to select a condition for which medication is desired;

Fig. 7 illustrates a screen display which permits the consumer to input the name of a particular product or medication on which information is desired;

5 Fig. 8 illustrates a screen display that permits the consumer to select symptoms associated with the condition selected at Fig. 6;

Fig. 9 is a table illustrating the drug products available for the selected condition and symptoms displayed for easy comparison of all the available drug products by the consumer;

10 Fig. 10 illustrates a screen display for detailed information on a product selected from the table of drug products;

Fig. 11 illustrates a screen display which permits the consumer to select detailed information on a specific herbal or natural product or information on all herbal or natural products used to treat a selected condition;

15 Fig. 12 illustrates a screen display that permits the consumer to select a condition for which treatment by herbal or natural products is desired;

Fig. 13 illustrates a screen display that permits the consumer to select symptoms associated with the condition selected at Fig. 12;

20 Fig. 14 illustrates a table displayed to the user showing the herbal products that are related to the selected conditions and symptoms;

Fig. 15 shows a screen display for accessing detailed information on a product selected from the table of herbal products at Fig. 14;

25 Fig. 16 illustrates a screen display which permits the user to select detailed information on a specific vitamin or nutrition product or information on all vitamin or nutrition products associated with a selected condition;

Fig. 17 illustrates a screen display which permits the user to select the type of vitamin, mineral, or nutrition product for which information is desired;

Fig. 18 illustrates a screen display which permits the user to select the patient category and desired dosage form for the vitamin, mineral or nutrition product;

30 Fig. 19 illustrates a screen display showing a table of information about the particular vitamin, mineral, or nutrition products that correspond to the user's selections performed at Figs. 17 and 18;

Fig. 20 shows a screen display for accessing detailed information on a product selected from the table of vitamin, mineral, or nutrition products at Fig. 19;

Fig. 21 shows a screen display which permits the user to select a category of medical supplies and tests for which information is desired;

5 Fig. 22 shows a screen display which permits the user to select the type of test for which information is desired;

Fig. 23 illustrates a table displayed to the user showing the particular tests of the type selected in Fig. 22;

Fig. 24 illustrates a screen display which permits the user to select 10 detailed information on a test product selected from the table at Fig. 23;

Fig. 25 shows a screen display which permits a system administrator to maintain the information available in the system of the present invention;

Fig. 26 shows a screen display which appears when the "OTC" button is selected at Fig. 25;

15 Fig. 27 shows a screen display for inputting information on a particular drug product;

Fig. 28 shows a screen display for inputting information on a particular herbal product;

Fig. 29 shows a screen display for inputting information on a particular 20 test product;

Fig. 30 shows another screen display for inputting information related to a particular test product;

Fig. 31 shows a screen display for inputting information related to a particular single vitamin product;

25 Fig. 32 shows a screen display for inputting information related to a particular multivitamin product;

Fig. 33 shows a screen display for linking one or more symptoms with a particular condition;

Fig. 34 shows a screen display for inputting information related to 30 frequently asked questions about products in a certain therapeutic class;

Fig. 35 shows a screen display that appears when the "Active Ingredients" box is selected at Fig. 25;

Fig. 36 shows a screen display that appears when the "Conditions" box is selected at Fig. 25; and

Fig. 37 shows a screen display which permits the administrator to associate particular symptoms with a particular product.

5

#### Detailed Description of the Drawings

Referring now to the drawings, Fig. 1 illustrates the hardware used in the medical product selection apparatus of the present invention. Remote computer 10 and main computer 9 are programmed to perform the functions described herein.

- 10 Remote computer 10 and main computer 9 may include any type of processor or an ASIC chip, if desired. Remote computer 10 and main computer 9 (shown only for computer 10) are coupled to a display 12, an input device 16, a memory 18, and may also be coupled to a network connection 20, and a printer 14, if desired. Also, remote computer 10 and main computer 9 may be linked to a vendor's inventory system via
- 15 network 20.

In one embodiment, the selection and display functions are performed on the remote computer 10 and the data input and administrative functions are performed on main computer 9. In an alternative embodiment, all functions are performed on one computer.

- 20 In the illustrated embodiments, the input device is a touch screen on the display 12. It is understood, however, that any type of suitable input device including a mouse, keypad, control buttons, stylus, joy stick, etc. may be used in accordance with the present invention. Computer 10 is illustratively capable of being connected to the network connection 20 for receiving and transmitting information to and from other devices over a local area network, wide area network, intranet, or via the Internet.
- 25

- The apparatus of the present invention provides a consumer with a list of a plurality of drug or other medical products usable to treat selected conditions and symptoms. Figs. 2a and 2b illustrate generally the steps performed to provide the list of products. Illustratively, the present invention is designed for use as a kiosk either in a pharmacy or in a retail setting that does not include a pharmacy. In another embodiment, it is understood that the system can be implemented using a computer at

a remote location connected to a main computer or server by a communication network. Network connection 20 can be a dial-in connection, a LAN, a WAN such as the Internet, or a wireless network. Therefore, in one embodiment the consumer can access the system and order products from a remote location, e.g., from home.

5           As shown in Fig. 2a, an opening screen is illustratively displayed on display 12 to provide the consumer with options for selecting medical products. A first option is for the user to look up specific products by name as illustrated at block 24. A second option is for the user to look up products by selecting conditions to be treated as illustrated at block 28. If the consumer selects the manual lookup at block 10 26, the consumer types in the name of a desired product or looks up the products in alphabetical order. The consumer can then access information such as leaflets or frequently asked questions related to the selected drug products as illustrated at block 25 and as discussed below in connection with Exhibits A-D. The consumer may also make an e-commerce purchase of a drug product as illustrated at block 27. The 15 purchase at block 27 is particularly useful in the embodiment where the consumer accesses the information from a remote location away from the retail setting or pharmacy. In addition, an e-commerce purchase may be made at the retail setting if the particular desired drug product is not available at the store location. Therefore, the product can be sent directly to the consumer's home.

20           If the user selects the option to generate a list of products based upon selected conditions at block 28, a list of conditions is then presented on the display screen 12 for the consumer to review. The consumer then chooses a condition using the input device 16. Next, a list of symptoms related to the selected condition is displayed as illustrated at block 30. The consumer chooses one or more symptoms for 25 which treatment is desired. Next, a list of patient information categories and choices within the categories is displayed on display 12. The consumer then provides the patient information via the input device 16 related to such information as age, dosage form preferences (tablets, capsules, liquid, chewable tablets), and any known drug allergies or chronic conditions.

30           The computer 10 then uses the condition, symptoms, and patient information to generate a table listing all of the products available to treat the particular selected condition and symptoms as illustrated at block 34. This table,

- which includes all pharmaceutically equivalent products stored in memory 18, is presented on the display screen 12 for review by the consumer. The consumer can print the table on printer 14, if desired. The products are matched to the consumer's condition and symptoms and to the patient information provided by the consumer.
- 5     The consumer can then elect to look at additional information related to the selected products as illustrated at block 36. When the consumer requests additional information, leaflets related to the products or list of frequently asked questions are presented on the display screen 12 for review. The consumer can also access promotional offers or coupons associated with any of the drug products on the list as
- 10    illustrated at block 38. The consumer can also select to make an e-commerce purchase as illustrated at block 39. As discussed above, the e-commerce purchase may be made from a remote location or from the kiosk at the retail store or pharmacy if the desired drug product is not available at the store. The drug product may then be sent to the customer's home location. The consumer can then either exit the system or
- 15    return to the opening screen to select other conditions.

In an alternative embodiment, the user can obtain information on over-the-counter drugs, herbal remedies, vitamins, and other medical products, as shown in Fig. 2b. At block 60 of Fig. 2b the user begins the selection process and enters some basic information about himself or herself, including age and, optionally, gender.

20    This information does not uniquely identify the user. Blocks 62, 64, 66 and 68 represent different choices of product categories available to the user. If the user desires information on non-prescription drugs, the user selects "non-prescription" at block 62. If the user desires information on herbal or natural products, the user selects "herbals" at block 64. If the user desires information on vitamins, minerals, or other

25    nutritional products, the user selects "vitamins" at block 66. If the user desires information on medical tests and devices, the user selects "tests and devices" at block 68.

If the user selects non-prescription drugs at block 62, the user is taken through a series of steps illustrated by blocks 70, 80, 100, 110, and 120. At block 70, the user selects a condition for which he or she desires treatment by non-prescription drugs. Alternatively, at block 71, if the user already knows the particular medication that he or she would like information on, the user so indicates. If the user is searching

for information on a specific medication, the user is prompted to enter the name of the particular medication at block 80. Once the name of the particular medication has been entered at block 80, information on that particular medication is displayed at blocks 110 and 120. If the user has selected a condition at block 70, the user will be 5 prompted to select particular symptoms or preferred medication forms at block 100. At block 110, a table showing the list of available products that match the user's criteria, as entered in blocks 60, 70, 100 and is displayed, allowing user to compare the available products. At block 110, the user may select a particular product for which he or she desires more information. More detailed information is displayed to 10 the user at block 120 for the product selected at block 110.

A similar process is performed for each of the other product categories. At block 64, the user indicates that he or she wishes to obtain more information on herbal or natural products. At blocks 72 and 73, the user is prompted to decide whether he or she wants more detailed information on a specific known product or 15 wants the system to help determine a suitable herbal product based on a particular condition and symptoms. If the user already knows the name of the product that he desires detailed information on as illustrated at block 73, the user is prompted to input the name of that product at block 82. Once the user has entered in the name of the particular product at block 82, information for that product is displayed to the user at 20 blocks 112 and 122. If instead, the user would like to find a product appropriate for a particular condition as illustrated at block 72, the user is prompted to select a condition to be treated at block 90. At block 102, the user is prompted to select one or more symptoms that are associated with the condition selected in block 90. Only the symptoms that relate to the particular condition selected at block 90 are displayed at 25 block 102 as choices for the user to select from. At block 112, the system displays a table of all of the products matching the condition and symptoms selected by the user at block 90 and 102. From this table, the user may select an individual product on which it would like more detailed information. At block 122, more detailed information is displayed for the particular product selected by the user at block 112.

30 If the user selects vitamins as the category of products on which he or she would like information, he or she so indicates at block 66. The user is prompted to decide whether he or she would like specific information on a particular product at

block 75, or would like to use the system to help determine a suitable vitamin, a mineral or nutritional product based on the user's needs at block 74. If the user knows the particular vitamin, mineral or nutritional product on which it would like more information, the user is prompted to enter the product name at block 84. Once the 5 product name is entered at block 84, the system displays information about that product at blocks 114 and 124. If the user does not know the particular product he or she needs, the system will proceed to block 92. At block 92 the user is prompted to select a particular type of vitamin, mineral or nutritional product. At block 104, the user is prompted to select additional criteria for selecting a product, such as dosage 10 form. At block 114, the system displays a table of all of the products matching the criteria entered by user at block 92 and 104. Viewing the table at block 114, the user may select a particular product from the table for which he or she desires more information. At block 124, the user is shown more detailed information about the particular product selected at block 114.

15       If the user desires information on medical tests or devices, the user so indicates at block 68. At block 78, the user is prompted to enter the category of products for which it desires information, for example, diabetes supplies or general tests. At block 94, based on his or her selection at block 78, the user is prompted to select additional criteria to help identify particular products that are most suitable for 20 the user's needs, for example, if "tests" is selected at block 78, the user selects the type of test desired at block 94. At block 116, the system displays a table of test or medical device products which match the criteria entered by the user at blocks 78 and 94. At block 116, the user may select an individual product from the table for which it would like more information. At block 126, more detailed information is displayed 25 for the particular product selected by the user at block 116.

Fig. 3 illustrates additional processes related to the generation of the table of products matching the condition, symptoms, and patient information input by the consumer. In the illustrated embodiments, information related to a plurality of medical products is stored in memory 18. All products stored in the memory 18 30 which treat the conditions and symptoms selected by the user are identified at block 40. These identified drug products are compared to drug products in the vendor's inventory which are also stored in memory 18 or in the separate inventory system 21

as illustrated at block 42. The products in the inventory can be updated manually, or automatically through the network connection 20 to inventory system 21. In one embodiment, the remote computer 10 or main computer 9 of the present invention is linked to a computerized inventory system so that remote computer 10 or main  
5 computer 9 constantly determines whether products are available within the store inventory. In alternative embodiments, either remote computer 10 is linked directly to inventory system 21 via network 20, or main computer 9 is linked to inventory system 21 and periodically updates remote computer 10. The comparison step is illustrated at block 44.

10 Products in the database which are not identified as treating the conditions and symptoms are not displayed to the user, as illustrated at block 46. If a product is identified as treating a particular condition or symptom, but is not available in the vendor's inventory, the identified product may either not be displayed at all or marked as not available on the table, depending upon the preference of the vendor, as  
15 illustrated at block 48. If products are identified at block 40 as treating the symptoms and conditions and are also in the store inventory at block 42, these products are included in the table of products displayed to the user and marked as available, if applicable, as illustrated at block 50. In another embodiment, the products identified at block 40 are displayed without comparing the identified products to the products in  
20 inventory.

An opening screen which is displayed by remote computer 10 on display 12 is illustrated in Fig. 4. The entry of a user name, password or other unique identification not required. The user selects the age range of the patient for whom medical product information is desired at area 130 of the display screen by clicking,  
25 selecting or touching one of the available buttons. At area 132, the user is given an option to select the patient's gender by touching, clicking, or otherwise selecting either the "Male" or "Female" button.

The user is asked to submit his or her zip code at area 134 by pressing the appropriate number buttons. However, this information is not required. In area  
30 136, the user can choose to start over and reenter the patient information, proceed to the next display screen, quit the program, or obtain "help" information on how to use the system, by selecting the applicable button.

Fig. 5 illustrates the display screen that appears if the user selects the "Next" button at Fig. 4. Fig. 5 presents the user with the available categories of medical products. The user selects one of non-prescription medication 140, herbal and natural products 142, vitamins and nutritional information 144 and medical supplies and tests 146. The user selects the "New Patient" button in area 148 to go back to the screen at Fig. 4 and start over.

The screen of Fig. 6 is displayed if the non-prescription drug button 140 is selected at Fig. 5. The consumer can elect to look up known specific non-prescription drug products by touching, selecting or clicking on area 150 of Fig. 6. If 10 the user already knows the name of the product, he or she is prompted to select the first few letters of the name, as shown in Fig. 7. Otherwise, the consumer proceeds by selecting or clicking a condition from those displayed on the screen of Fig. 6. An example of illustrated conditions to be selected is shown in Fig. 6. For instance, conditions may include pain, fever, headache, common cold, cough, allergy, sore 15 throat, flu, indigestion, nausea, skin disorders, infections, foot and hand care, sleep disorders, weight gain/loss, smoking dependence, eye care and ear care. Illustratively, these conditions are displayed on display 12 to permit the consumer to click or select a desired condition. Once a particular condition is selected at Fig. 6, remote computer 10 provides a list of symptoms corresponding to the selected condition on display 12 20 as shown in Fig. 8.

The consumer then selects one or more symptoms at region 154 of Fig. 8. The symptoms displayed at Fig. 8 are only those symptoms associated with the condition selected at Fig. 6. For example, illustrative symptoms for the pain, fever, and headache condition selected at Fig. 6 are shown in Fig. 8. It is understood that 25 additional or fewer symptoms may be provided for each condition. At region 156, the user selects one or more preferred medication forms. Example medication forms include tablets, caplets, liquid, rubs, spray, and suppositories. Once the desired number of symptoms and medication forms are selected, the user clicks on or selects the "Next Screen" region at location 152 of Fig. 8.

30 Remote computer 10 then matches drug products stored in the memory 18 with referenced conditions and symptoms and generates a table including all available drug products for treatment of the selected condition and symptoms as

illustrated at Fig. 9. Computer 10 deletes items from the list which may cause problems based on the known patient information. The customer can view the table on display 12 or print the table on printer 14, if desired. By providing the consumer with table of all available products, the consumer can compare the drug products to determine which drug product to select based upon ingredients and strength, side effects, warnings and cautions, dosage form, dose, pack size, pack price, price per dose, coupon availability, brand name, etc. The present invention does not eliminate products from the list unless a problem is identified based upon the particular patient information input at Fig. 4.

If the consumer selects a particular product from region 158 of Fig. 9, additional information on the selected product is printed or displayed as shown in Fig. 10. At Fig. 10, information illustratively made available to the user includes patient education sheets, frequently asked questions, and store location. A sample of additional information is illustrated in Exhibits A and C. A consumer can also display or print "Frequently Asked Questions" related to the selected drug product as illustrated in Exhibits B and D by selecting the appropriate area of the screen of Fig. 10. The consumer may also display or print a coupon for the selected product (not shown). Coupons may not be available for all of the products. Coupon availability, price, and other information related to the drug products can be stored in memory 18 of the main computer and updated regularly via the network connection 20 from main computer 9 or inventory system 21. As discussed above, the remote computer 10 may either eliminate drug products from the table which are not in the inventory of the particular vendor or store, or provide a separate column in the table of Fig. 9 which indicates the drug products that are available from the particular vendor.

Fig. 11 illustrates the display screen that is shown if the user selects the herbal and natural products button 142 of Fig. 5. If the user would like the system to help determine a suitable product for his or her condition, the user selects the "help me" button 160. If the user already knows the specific products that he or she needs and just wants more information on the product, the user selects the "I know" button 162. If the "I know" button 162 is selected, the user is prompted to enter the first few letters of the product on a screen similar to that shown in Fig. 7. If the user selects the "help me" button 160, the user is prompted to select a condition, as shown in Fig. 12.

For example, some of the condition categories for herbal or natural products include digestive disorders, kidney or urinary, prostate, respiratory, asthma, heart, blood pressure and cholesterol, brain and nervous system, arthritis, muscles and bones, joints, skin, hair, sport supplements, sexual energy, chronic fatigue, diabetes, lip, 5 mouth, eye disorders, and cancer prevention.

Fig. 13 illustrates a screen which prompts the user to select one or more symptoms that are associated with the condition that was selected at Fig. 12. For example, Fig. 13 shows the listed symptoms associated with brain and nervous system disorders, the condition selected at Fig. 12. Some symptoms applicable to the 10 brain and nervous system are anxiety, mood swings, depression and headaches. Fig. 14 shows the list of herbal and natural products that match the condition and symptoms selected by the user in Figs. 12 and 13. Some of the information illustratively displayed in the list of products includes the active ingredients, inactive ingredients, warnings and side effects, anti-ingredients, package sizes and prices, 15 prices per dose, and an indication of whether or not a coupon is available for the particular product. The user may select a particular product for additional information by clicking or touching the area where the product name is displayed in region 162 of Fig. 14. If the user selects that particular product for more information at Fig. 14, a screen such as illustrated in Fig. 15 is displayed. Fig. 15 provides the user with more 20 detailed information about the product selected from the table at Fig. 14. For example, if a user selected "Gotu Kola" from the table at Fig. 14, the information displayed at Fig. 15 would illustratively include the location of the product in the store, and provide means to access patient education sheets and frequently asked questions.

25 If the user selects the vitamins and nutritional information button 144 at Fig. 5, a screen such as the one illustrated in Fig. 16 is then displayed. If the user would like the system to assist him or her in finding the right vitamin or nutritional information for a particular condition, the user selects the "help me" button 164 of Fig. 16. If the user already knows the particular vitamin or nutritional information it 30 wants the user selects the "I know" button 166. If the "I know" button 166 is selected, the user is prompted to enter the first few letters of a product it would like more information on, from a screen similar to that shown in Fig. 7. If the user selects the

"help me" button 164, the user is prompted for more information about the type of product needed, as illustrated in Fig. 17. For example, the user may select single vitamins, multivitamin supplements, weight gain or loss products or information on recommended daily allowances of vitamins and minerals. The user also may select a 5 button called "specific needs" which allows the user to identify particular needs that a particular vitamin may address. These needs are linked to a particular vitamin as shown in Fig. 31. Once the user has selected a particular type of vitamin, mineral, or nutrition product at Fig. 17, the user is prompted for additional information which will limit the selection of applicable vitamins, minerals and supplements available at Fig.

10 18.

As shown in Fig. 18, the user may indicate whether the particular product is needed for a specific class of individuals, such as female, prenatal, male, children, or seniors. The user may also select the particular dosage form that he or she prefers, for example, tablets, capsules, liquids, chewable tablets, or powders. Once the 15 user completes the preferences requested at Fig. 18, the system generates a table listing the vitamin, mineral or nutritional products that match the information selected at Figs. 17 and 18.

For example, Fig. 19 shows the table that is generated if the user selects multivitamin, female, and tablets, liquid and capsules at Fig. 18. Fig. 19 20 illustratively shows the composition of each multivitamin including the amount of each vitamin included in the multivitamin, the package size, the package price, the price per dose, and whether a coupon is available for a particular product. At Fig. 19, the user may obtain more information about one of the listed products by selecting or clicking on the name of the product. If the user selects a particular product for more 25 information, a screen such as shown in Fig. 20 is presented. For example, Fig. 20 shows the screen that appears if the Centrum multivitamin liquid product is selected at Fig. 19. Illustratively Fig. 20 displays information about the location of the product in the store, patient education information and frequently asked questions related to the selected product.

30 If the user selects the medical supplies and tests button 146 at Fig. 5, the system of the present invention displays a screen such as shown in Fig. 21. At Fig. 21, the user is prompted to identify the particular category of medical supplies or tests

for which it would like additional information. For example, the user may select by clicking or touching the screen at the appropriate position, general medical supplies, diabetes supplies, tests, or blood pressure supplies. Based on a category of medical supplies and diagnostic tests selected by the user in Fig. 21, the system next prompts

5 the user for the particular type of product for which information is desired. For example, Fig. 22 shows the available tests if the “tests” button is selected at Fig. 21. At Fig. 22, the user selects the type of test for which information is desired. For example, Fig. 22 illustratively lists the following tests: Pregnancy tests, ovulation prediction, diabetes screening, drug tests, hepatitis C tests, colorectal disease, HIV

10 tests, and urinary tract infection tests. At Fig. 23, the system generates a table listing the available tests based on the information provided by the user in Figs. 21 and 22. For example, if the user selected “pregnancy tests” at Fig. 22, the products listed in Fig. 23 would be shown. Information associated with each product may also be displayed, including, for example, a product description, a product function, a model

15 number, package size, package price, unit price, and whether a coupon is available for the particular product. While viewing the screen of Fig. 23, the user may select or click on the name of a particular product to obtain more detailed information about that product. If the user selects a product name for more detailed information, a screen such as shown in Fig. 24 is displayed. For example, if a user selected the ept

20 pregnancy test from Fig. 23, the screen shown at Fig. 24 would appear. Illustratively, Fig. 24 includes information about the location of a product in the store, patient education sheets, and frequently asked questions.

Fig. 25 illustrates a screen which is presented to the person who is responsible for entering and maintaining via an input device information in the apparatus of the present invention, such as a system administrator. The system administrator typically uses an input device coupled to main computer 9, such as a keyboard or mouse, to maintain the data in the system. Typically this person will be required to enter a user name and password to access the maintenance portion of the system, beginning at Fig. 25. In the illustrative embodiment, the maintenance portion

25 of the system resides on main computer 9. Region 170 of Fig. 25 includes a list of the types of products for which information is made available to consumers through the use of the system of the present invention. For example, over the counter or non-

prescription medications, herbals, vitamins, multivitamins, devices, and tests are major categories of products for which information is provided. By selecting, clicking, or touching one of buttons 172 through 182, the administrator can input, modify, or delete information in any of these product categories. In region 184, the 5 administrator may input, modify or delete information related to key words which are used to organize and access particular information related to the products. For example, active ingredients, conditions, symptoms, conditions and symptoms, dosages, age groups, manufacturers, price type, units of measure, and therapeutic class are all pieces of information associated with products which are maintained at the 10 screen of Fig. 25. By clicking, touching, or selecting any of the boxes 186 through 204, the administrator may maintain the selected information. At box 206, the administrator may generate reports, for example, detailed or summarized information on particular products or key words. Reports may be displayed on a display 12 or printed via a printer 14.

15 Fig. 26 shows illustratively a screen that appears if the "OTC" button 170 of Fig. 25 is selected by the administrator. Fig. 26 shows a listing of the products in the non-prescription, or over the counter category. The user may select by clicking or touching the name of a particular product in the list to edit, modify or delete the 20 information related to that product. If the user presses the "new" button, a screen such as shown in Fig. 27 appears whereby the administrator may enter information for a new product.

As shown in Fig. 27 the information which can be input for a particular product includes the product name, the manufacturer, the NDC or National Drug 25 Code, the description, the UPC Code, the manufacturer's description, the package size, the package units, the age group, the therapeutic class, the gender of the patient, and the upper and lower age range limits. The NDC Code and/or the UPC Code are used to link to inventory system 21. In addition, as shown in region 210, the administrator may input or associate particular information with the product. For example, the administrator may associate active ingredients, inactive or absent 30 ingredients, symptoms, warnings, side effects, and patient education information with the particular product. Similar data input screens are used by the administrator to enter information about products in the other available categories, including the herbal

products (Fig. 28), devices and tests (Fig. 29), tests (Fig. 30), single vitamins (Fig. 31), and multiple vitamins (Fig. 32). Except for Figs. 31 and 32, the "symptoms" button of Figs. 28-30 is used to permit the administrator to associate particular symptoms with a product. Figs. 31 and 32 relate to vitamin products. In these 5 screens, the "conditions" area is used to link products to specific needs of the user. If the identity of the particular vitamins is not present in the product name, the vitamin name is also specified on Fig. 31 by selecting the vitamin from a list, and on Fig. 32 by clicking or selecting the square boxes next to the name of the particular vitamin(s) included in the multivitamin product.

10 Fig. 33 displays a screen whereby the administrator associates symptoms with each particular condition. The administrator clicks or selects on symptoms listed in the right hand box on the screen of Fig. 33. For example, for the arthritis, muscle, bone, or joint condition, the "aches/restless legs" symptom may be selected. Once the administrator has completed assigning symptoms to conditions, 15 the administrator clicks or touches the save button to record the information in memory 18. The administrator completes this process for each of the available conditions. Symptoms may be assigned to more than one condition. Also, conditions may have any number of symptoms associated with them. The linking of conditions and symptoms determine which systems will be displayed in Figs. 8 and 13 for the 20 conditions selected in Figs. 6 and 12, respectively.

As discussed above, once a user has selected a particular product for detailed information; one type of information available is frequently asked questions. In the illustrated embodiment, the frequently asked questions are associated with the therapeutic class of the particular selected products. Fig. 34 shows a display screen 25 whereby the administrator may associate particular frequently asked questions with a therapeutic class. Products are assigned to therapeutic classes as illustrated at Fig. 27.

Fig. 35 shows a display screen which appears if the administrator selects the active ingredients button 186 at Fig. 25. Fig. 35 allows the administrator to add, delete or modify the information relating to ingredients, and to add new 30 ingredients or delete ingredients that are no longer used. To add a new ingredient to the list of available ingredients, the administrator clicks or selects the add button on Fig. 35. To modify an existing ingredient, the administrator selects or clicks on the

name of the ingredient to be modified. The data entry screen such as shown in Figs. 27 through 32 is then used to add, delete or modify ingredient information.

Fig. 36 shows a screen that is displayed if the administrator selects the conditions button 188 at Fig. 25. A similar process as discussed above for active ingredients is used to add, delete or modify conditions and condition information, as well as information relating to the other key words 188 through 204.

Fig. 37 shows the screen that appears if the "symptoms" button in region 210 of Fig. 27 is selected by the administrator. At Fig. 37, the administrator associates particular symptoms with a particular product. As shown in Fig. 37, all of the available symptoms are displayed in the left-hand column. In order to add or associate a symptom with the product name displayed in the upper portion of the screen, the administrator clicks or selects the particular symptom to be added and then clicks the add button in the center of the screen. When a symptom has been selected to be added, it will appear in the right-hand column of the screen. To delete a symptom that has already been selected or associated with the product, the administrator highlights the symptom in the right-hand column to be removed, and then clicks or selects the remove button. Once the symptom has been removed, it will no longer appear in the right-hand column of Fig. 37. All products linked to symptoms selected by the user using screens in Figs. 8 and 13, for example, are included in the list or display grids of products unless the product is optionally deleted from the list by checking the inventory system 21. Therefore, the customer can review and compare the entire list and make his or her own selection of the drug product based on the information presented.

One additional feature of the present invention includes the ability to allow vendors to customize the process of matching products to symptoms and conditions based on selected criterion, such as the particular prescribing preferences of the pharmacist, the vendor's marketing strategies, or according to requirements of promotional agreements. For example, a particular brand name may be configured to always be displayed first in the list of products generated for a particular combination of conditions and symptoms. Also, the present invention includes reporting features which allow vendors to track consumer usage of the system and the frequency in which different product categories are accessed.

-20-

As an example, the apparatus of the present invention may be implemented using Macromedia Director and Flash software, an Oracle database, and Lingo, SQL and HTML programming languages. However, one skilled in the art would readily understand that there are many suitable software programs and tools for 5 developing systems consistent with the present invention.

Although the invention has been described in detail with reference to certain illustrated embodiments, variations exist within the scope and spirit of the invention as described and as defined in the following claims.

## CLAIMS:

1. A medical product selection apparatus comprising:
  - a computer;
  - a display coupled to the computer;
  - an input device coupled to the computer, the input device being configured to permit a user to input at least one selected symptom for which a medical product is desired;
  - a memory coupled to the computer, the memory being configured to store information related to a plurality of medical products for treating selected symptoms; and
  - means for generating and displaying a list from the stored information, the list including all of the medical products stored in the memory which are used for treating a selected condition.
2. The apparatus of claim 1, further comprising means for comparing the medical products on the generated list with medical products available in an inventory of a vendor.
3. The apparatus of claim 2, wherein medical products on the generated list which are not in the inventory are marked as "Not Available".
4. The apparatus of claim 2, wherein medical products on the generated list which are not in the inventory are removed from the list.
5. The apparatus of claim 2, wherein the computer is coupled to a communication network and information about the medical products available in the inventory is received by the computer via a communication network.
6. The apparatus of claim 1, wherein the input device is a touch screen display.
7. The apparatus of claim 1, further comprising a printer coupled to the computer.
8. The apparatus of claim 1, further comprising means for providing additional information related to selected medical products on the generated list of medical products.

9. The apparatus of claim 1, further comprising means for providing coupons related to selected medical products on the generated list of medical products.

10. The apparatus of claim 1, wherein information related to the 5 medical products on the list of medical products including at least one of therapeutic use, side effects, warnings, drug interactions, dosage form, pack size, pack price, and price per dose is displayed on a table on the display.

11. The apparatus of claim 1, wherein the computer is configured to display a plurality of symptoms associated with a selected condition on the display, 10 the at least one symptom being selected by the user with the input device, and the generating means using the selected symptoms to generate the list.

12. The apparatus of claim 11, wherein information related to a patient is input using the input device, the generating means using the selected symptoms and the patient information to generate the list.

15 13. The system of claim 1, further comprising means for indicating a location in a store of at least one medical product selected by the user from the list.

14. The apparatus of claim 1, wherein the computer is coupled to a communication network, the memory being located at a remote location and coupled to the computer via a communication network.

20 15. A medical product selection apparatus comprising:  
a computer;  
a display coupled to the computer;  
an input device coupled to the computer, the input device being  
configured to permit a user to input at least one selected symptom for which a medical  
25 product is desired;

a memory coupled to the computer, the memory being configured to store information related to a plurality of medical products, each of the medical products being linked to at least one symptom, the computer being programmed to generate a list from the stored information and display the list on the display, the list 30 including all of the medical products stored in the memory which are used for treating a selected condition.

16. The system of claim 15, wherein the plurality of medical products includes at least one of non-prescription drugs, herbal products, nutrition supplements, vitamins, diagnostic tests, and medical devices.

17. The apparatus of claim 15, wherein the computer is configured  
5 to compare the medical products on the generated list with medical products available in an inventory of a vendor.

18. The apparatus of claim 15, wherein the computer is coupled to a communication network, the memory being located at a remote location and coupled to the computer via a communication network.

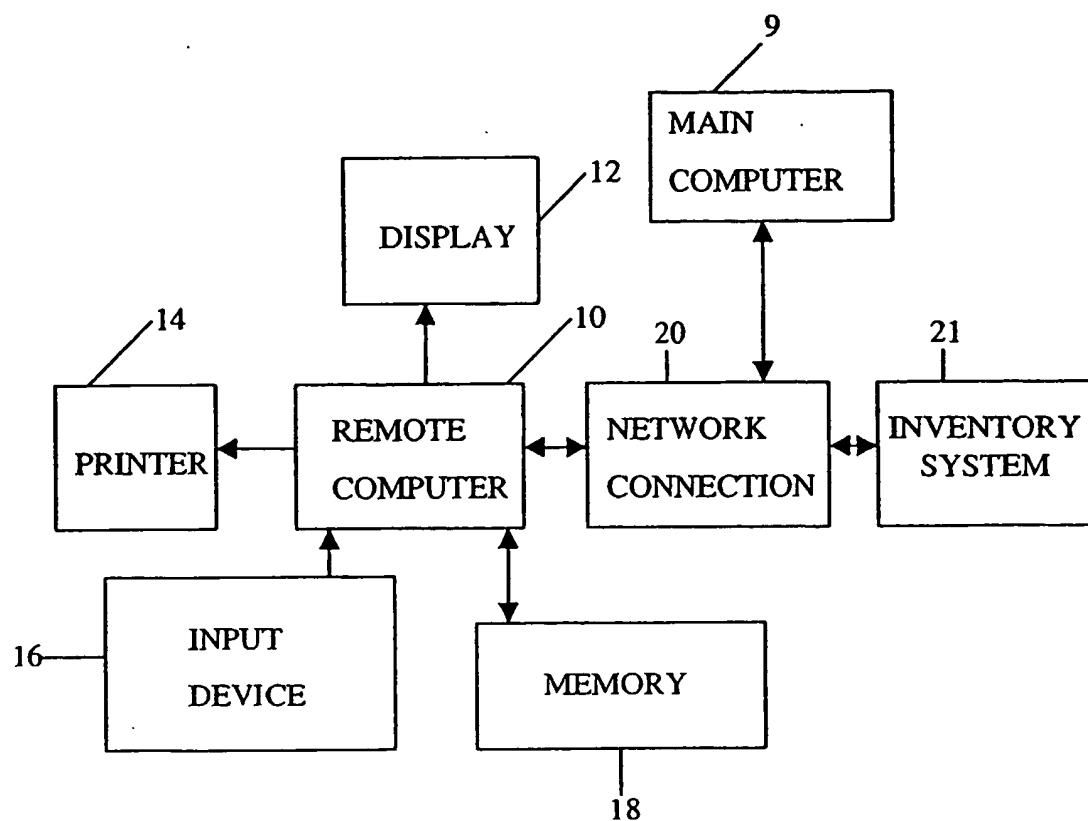
10 19. A medical product information system operable over a communication network, the system comprising:

a first computer coupled to the communications network;  
an input device coupled to the first computer, the input device being configured to permit a user to input at least one selected symptom for which a medical  
15 product is desired;

a memory coupled to the first computer, the memory being configured to store information related to a plurality of medical products, each of the medical products being linked to at least one symptom, the first computer being programmed to provide selected information from the stored information based on the selected  
20 symptom, and

a second computer coupled to the communications network and configured to provide inventory information to the first computer for the at least one medical product via the communications network.

20. The system of claim 19, further comprising a third computer  
25 coupled to the communication network and configured to provide information related to the plurality of medical products to the first computer.

**FIG. 1**

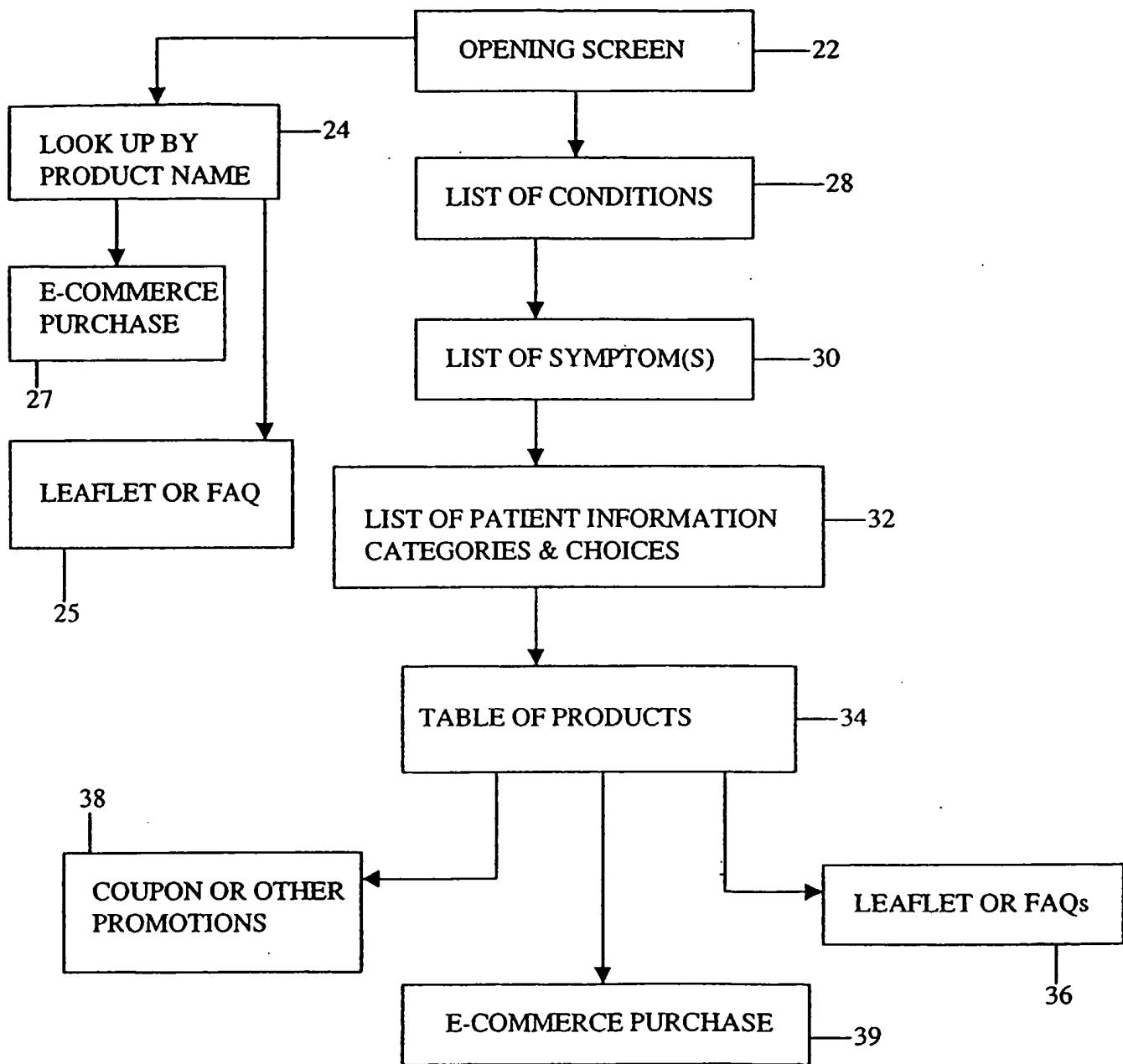


FIG. 2A

3/38

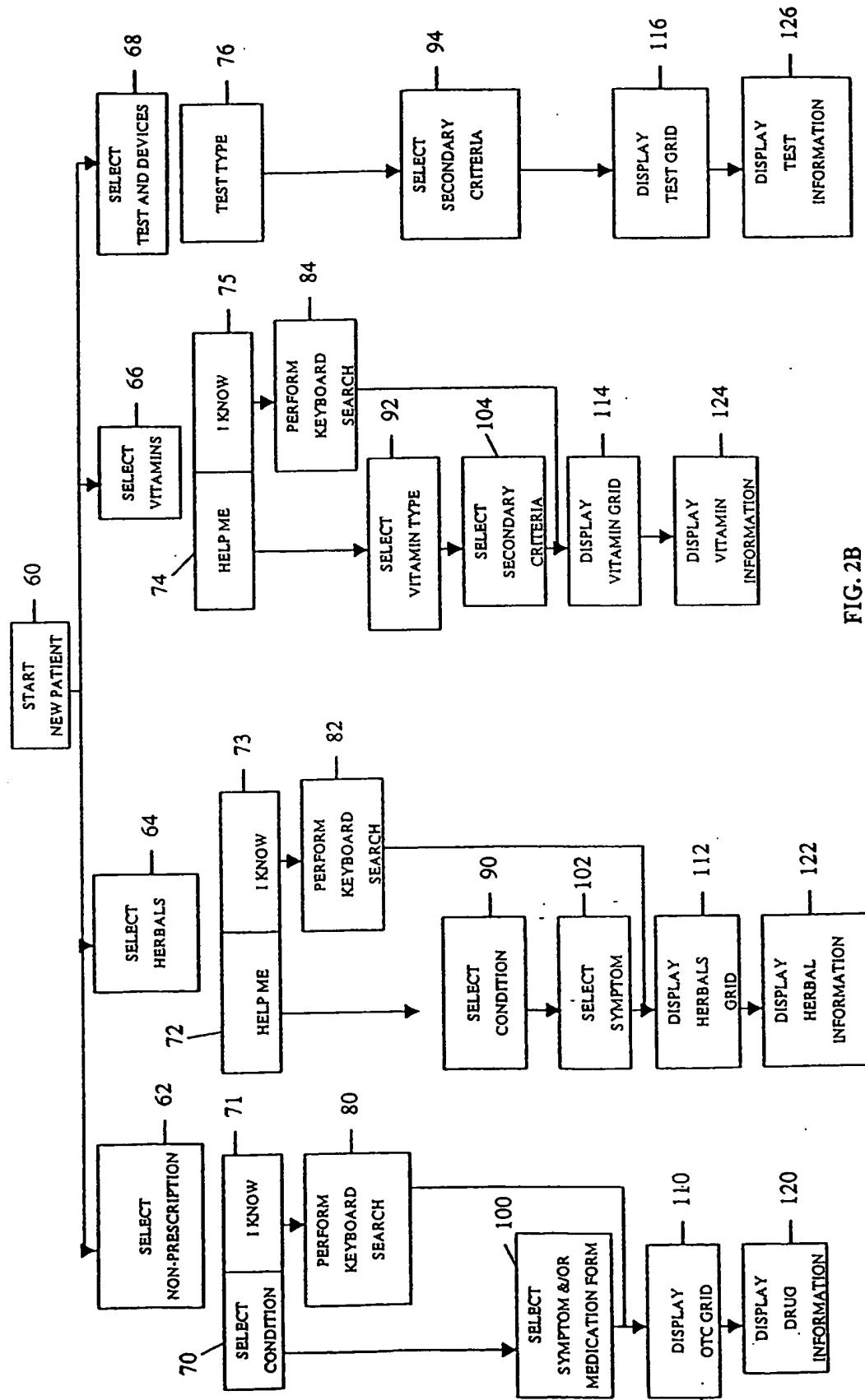


FIG. 2B

4/38

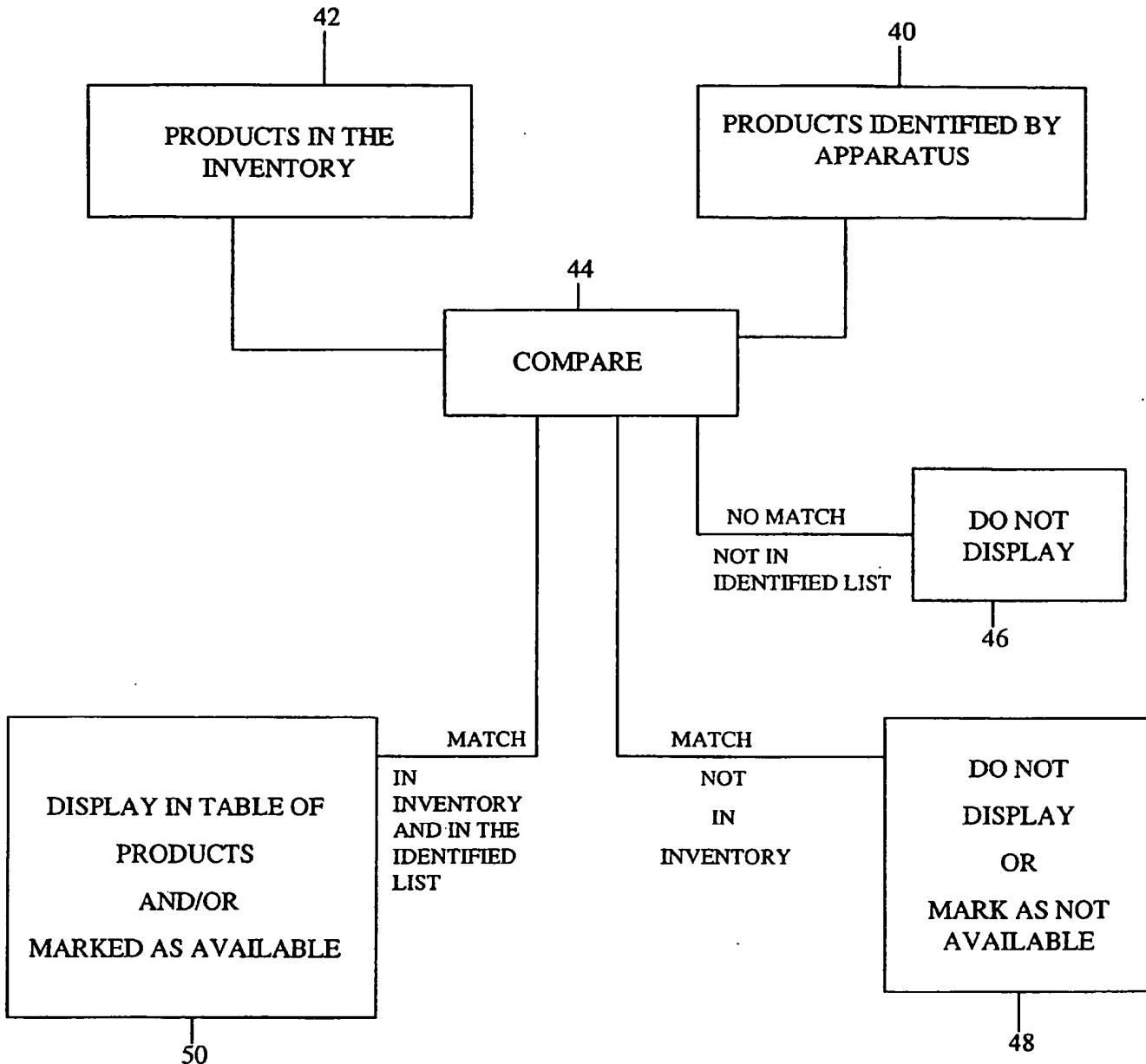


FIG. 3

5/38

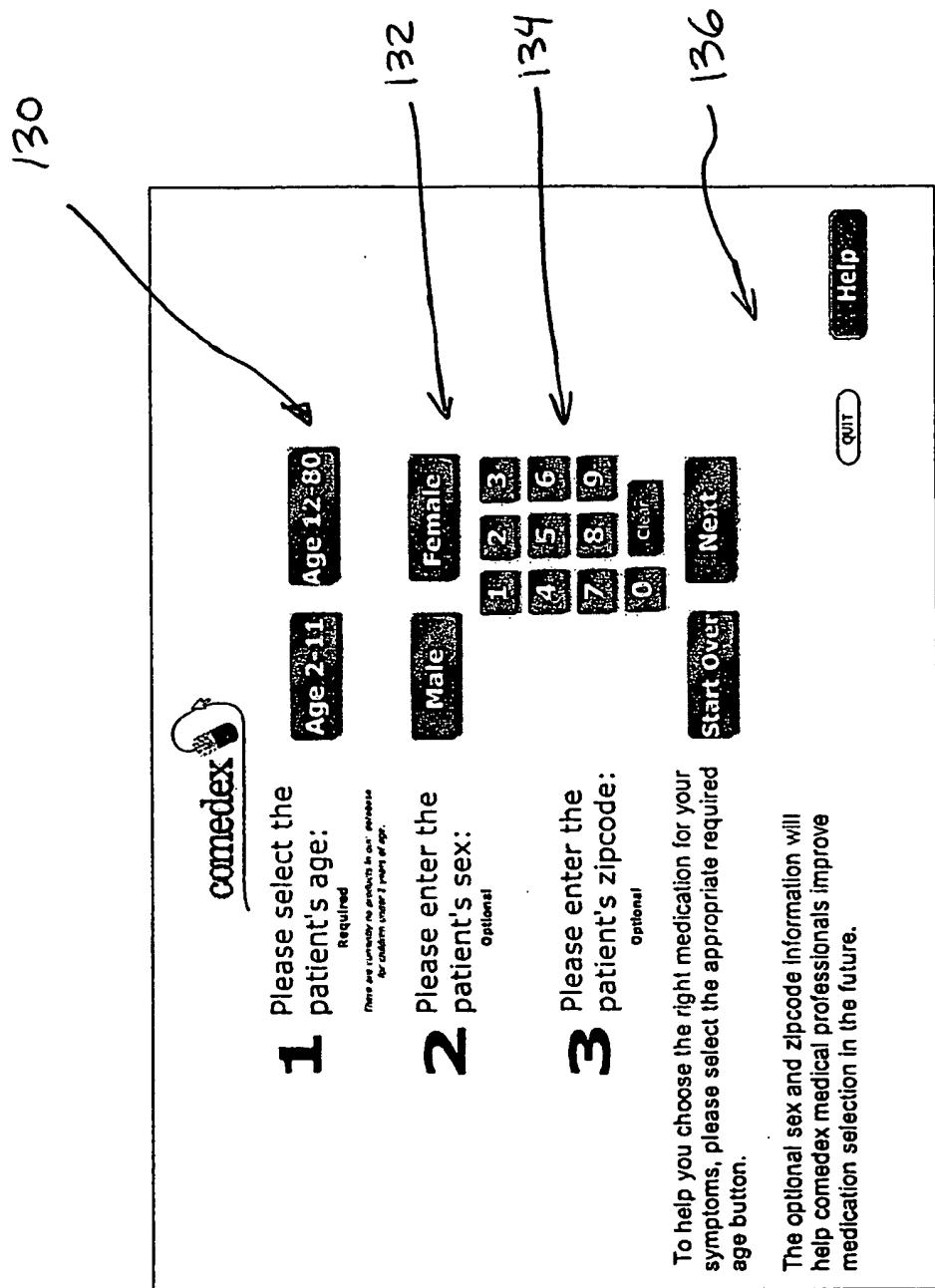


Fig. 4

6/38

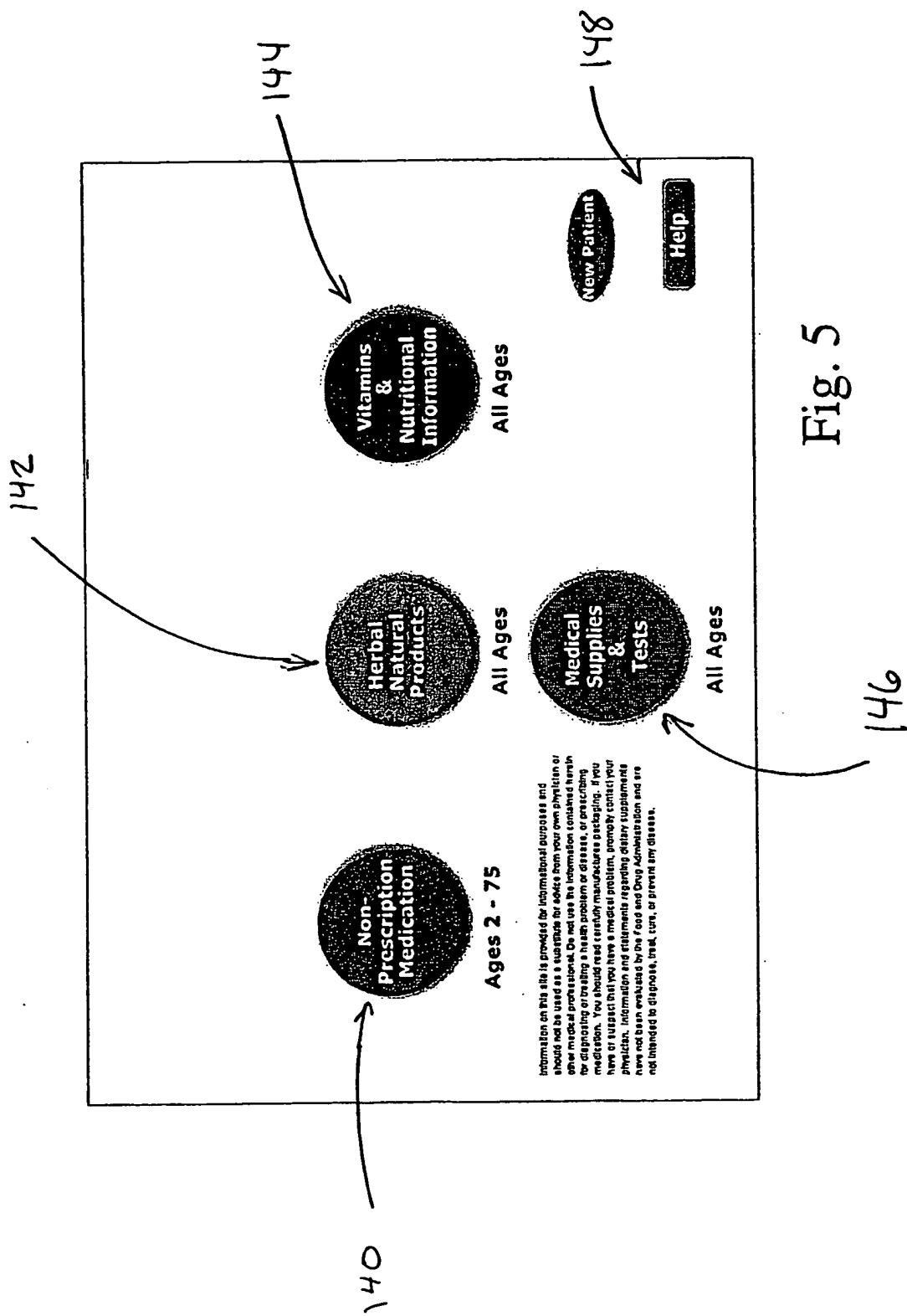


Fig. 5

7/38

ISO

I know the medication Show me the details.

Please select a condition

Pain, Fever, Headache	Women's Special Needs
Cold, Allergies	Skin Disorders, Infections
Flu, Sore Throat	Foot, Hand Care
Cough	Sleep Disorders
Constipation, Diarrhea, Gas	Weight/Gain Loss
Indigestion, Heartburn, Ulcers	Diabetic Care
Hemorrhoids, Pinworms	Nicotine, Smoking Dependence
Nausea, Vomiting Motion Sickness	Eye Care
Teeth, Mouth Care	Ear Care
Family Planning	New Patient

Fig. 6

8/38

Please enter the first few letters of the OTC  
Medication you would like.

MO

1 2 3 4 5 6 7 8 9 0

Q W E R T Y U I O P

A S D F G H J K L

Z X C V B N M

**SPACE**

**CLEAR**

**BACKSPACE**

New Patient

Medication Home

**SEND**

1	2	3	4	5	6	7	8	9	0
Q	W	E	R	T	Y	U	I	O	P
A	S	D	F	G	H	J	K	L	
Z	X	C	V	B	N	M			

Fig. 7

9/38

154

156

<p>Please select your symptoms (limit 3)</p>									
<b>Headache</b>	<b>Muscle Pain</b>	<b>Joint Pain</b>	<b>General Aches</b>	<b>Body Aches</b>	<b>Arthritis</b>	<b>Painful Urination</b>	<b>Backache</b>	<b>Menstrual Pain</b>	<b>Muscle Sprains</b>
<b>Tablets</b>	<b>Capsules</b>	<b>Liquid</b>	<b>Rubs</b>	<b>Spray</b>	<b>Suppositories</b>				<b>New Patient</b>
<b>Next Screen</b>							<b>Back One Screen</b>		

Fig. 8

152

10/38

Product & Dose Form	Active Ingredient	Inactive Ingredient	Anti Ingredient	Side Effects	Warnings	Drug Interactions	Pkg Size	Pkg Price	Price Per Dose	Coupon
Neoton Sinus Headache Non-Drowsy	Ibuprofen HCl Pseudophephidine HCl	Carnauba Wax, Cellulose, Corn Starch, FD&C Red No 40, Hydroxypropyl Methylcellulose, Silicon Dioxide, Sodium Lauryl Sulfate, Sodium Starch Glycolate, Stearic Acid, Titanium Dioxide, Tracesulin		Nervousness; dizziness; sleeplessness; GI irritation	Follow dosing directions	MAOIs; anticoagulants	20	\$10.00	\$0.50	
Excedrin Extra Strength	Acetaminophen Aspirin Caffeine	Benzoic Acid, Hydroxypropyl Methylcellulose, Hydroxypropyl Cellulose, Microcrystalline Cellulose, Mineral Oil, Polyacrylate 20, Povidone, Propylene	Lactose-Free	GI Irritation; Dizziness; Sleeplessness; Nervousness	Alcohol; Caffeine	Heparin; Karolac; Dipyradantoin; Anticoagulants	24	\$10.00	\$0.42	



158

Fig. 9

11/38

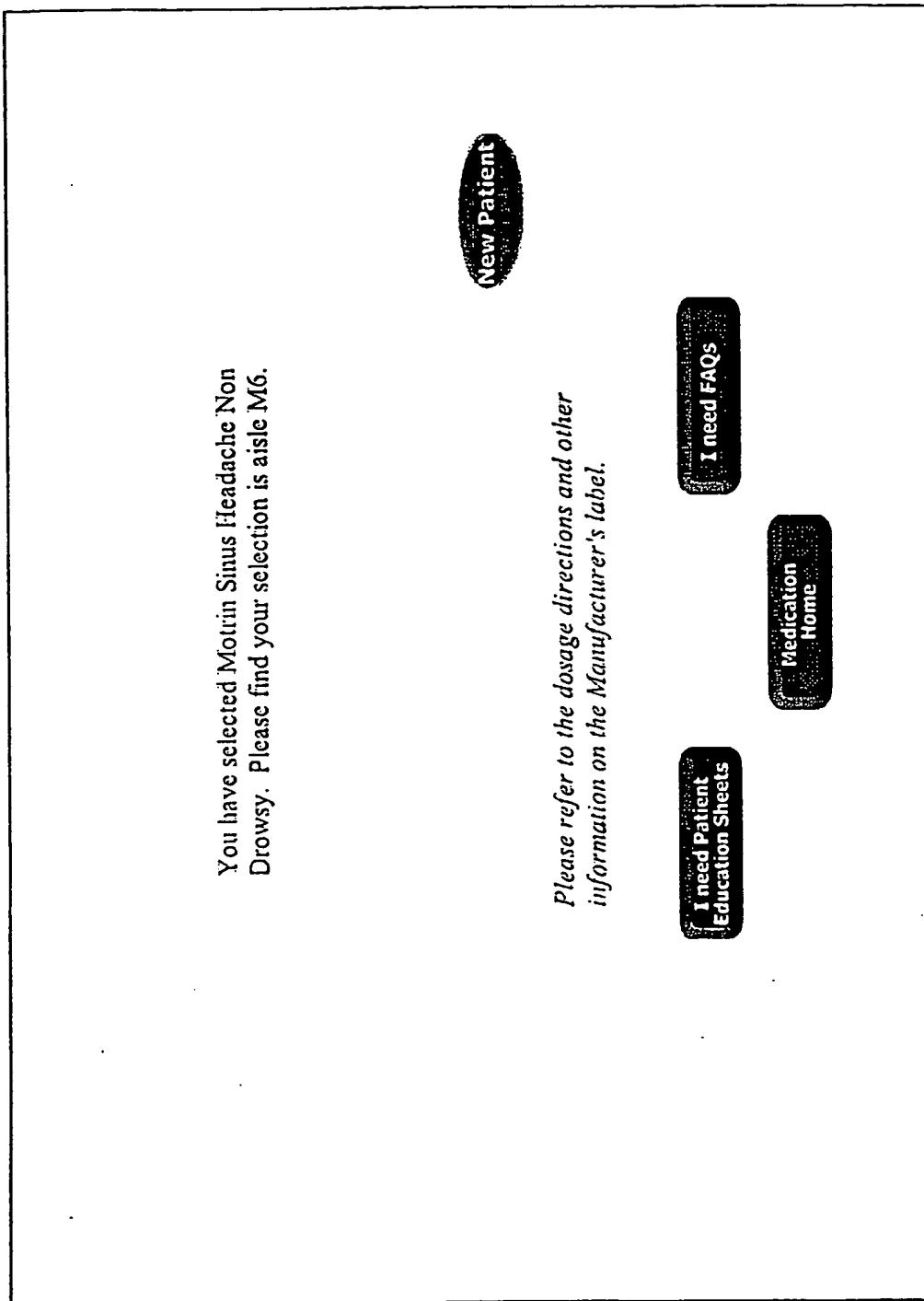


Fig. 10

12/38

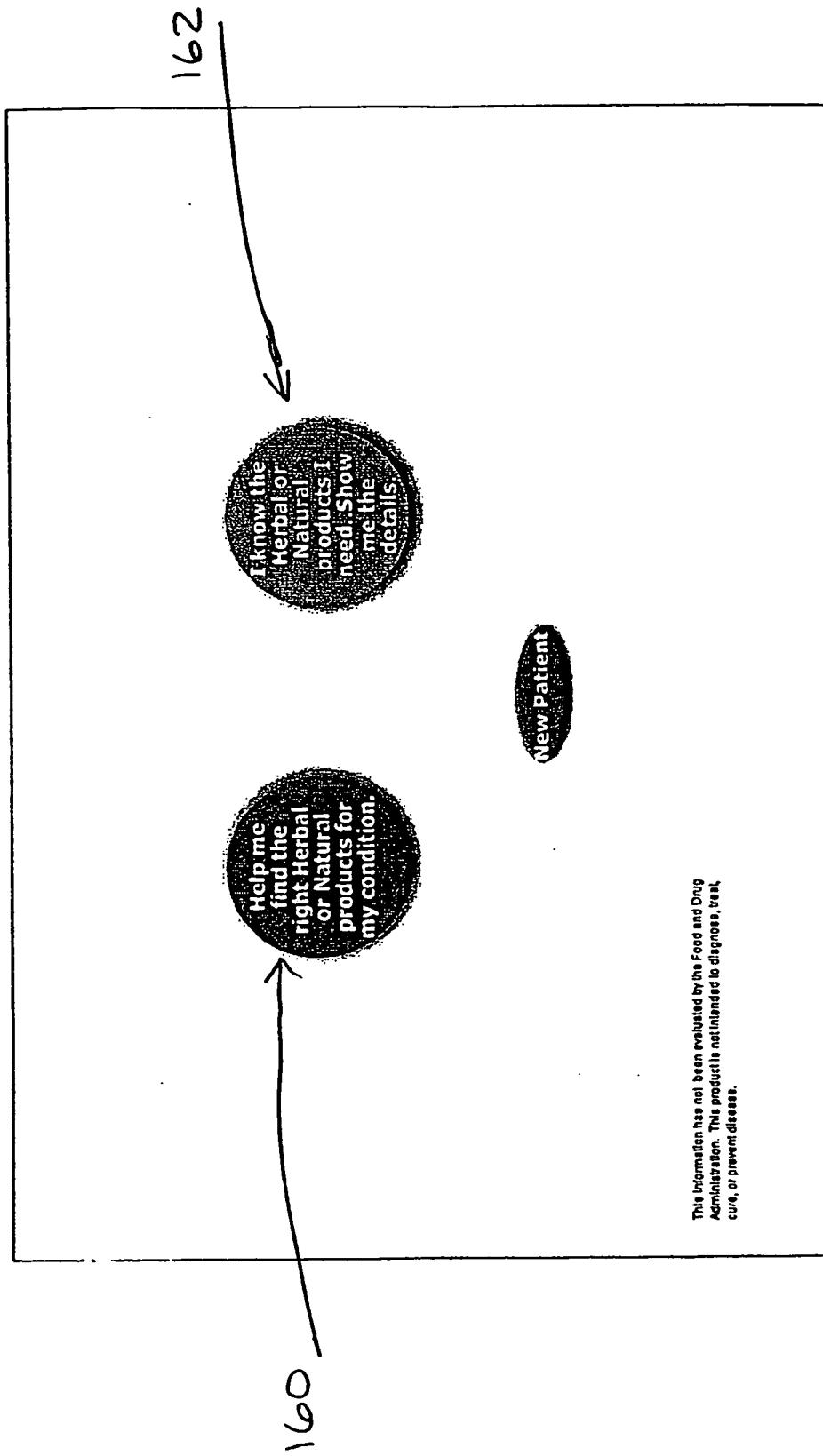


Fig. 11

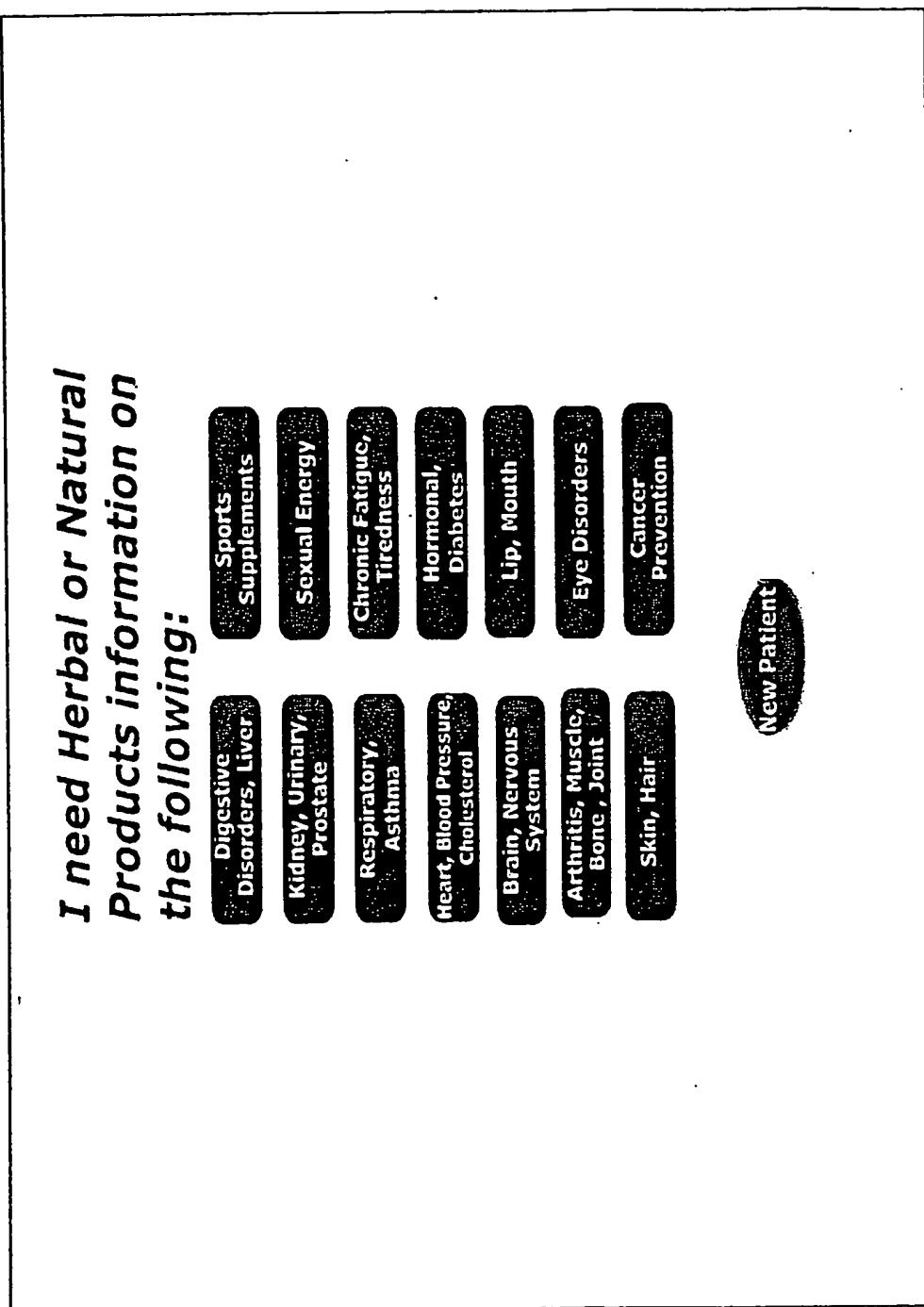


Fig. 12

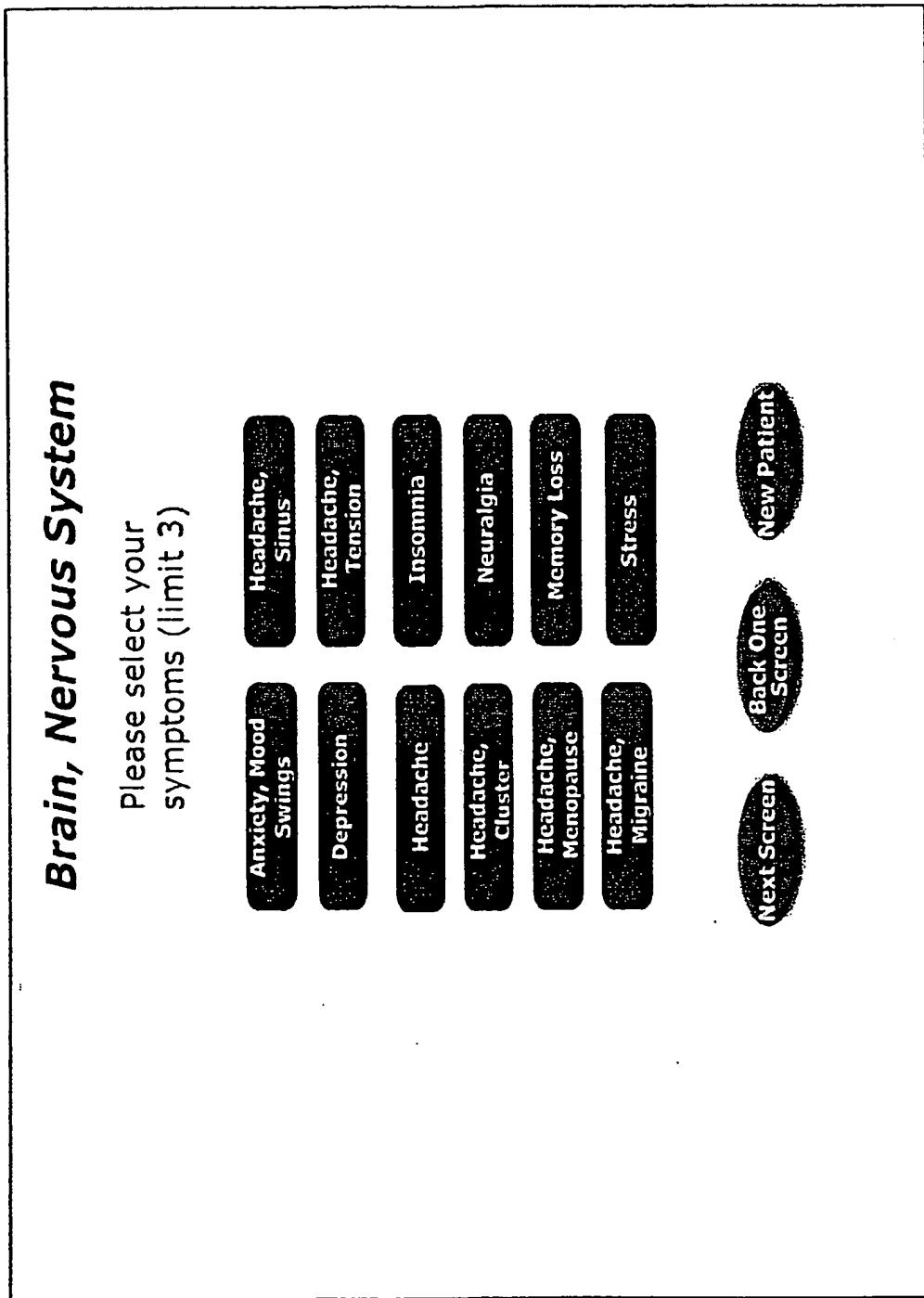


Fig. 13

15/38

Product & Dose Form	Active Ingredient	Inactive Ingredient	Actn Ingredient	Side Effects	Warnings	Drug Interactions	Pkg Size	Pkg Price	Price Per Dose	Coupon
St. John's Wort Flowering Top Gelatin Kos	St. John's Wort none available none	none available Kohler stearate	Alcohol-Free Gelatin, Magnesium none	Restlessness; fatigue itching; photosensitization; contact dermatitis	May make skin more sensitive to effects of the sun Do not use when pregnant; epilepsy	Other photosensitizing drug Diabetes therapy; inc cholesterol levels	30 100	\$10.00 \$16.00	\$1.00 \$1.60	YES YES



162

Fig. 14

16/38

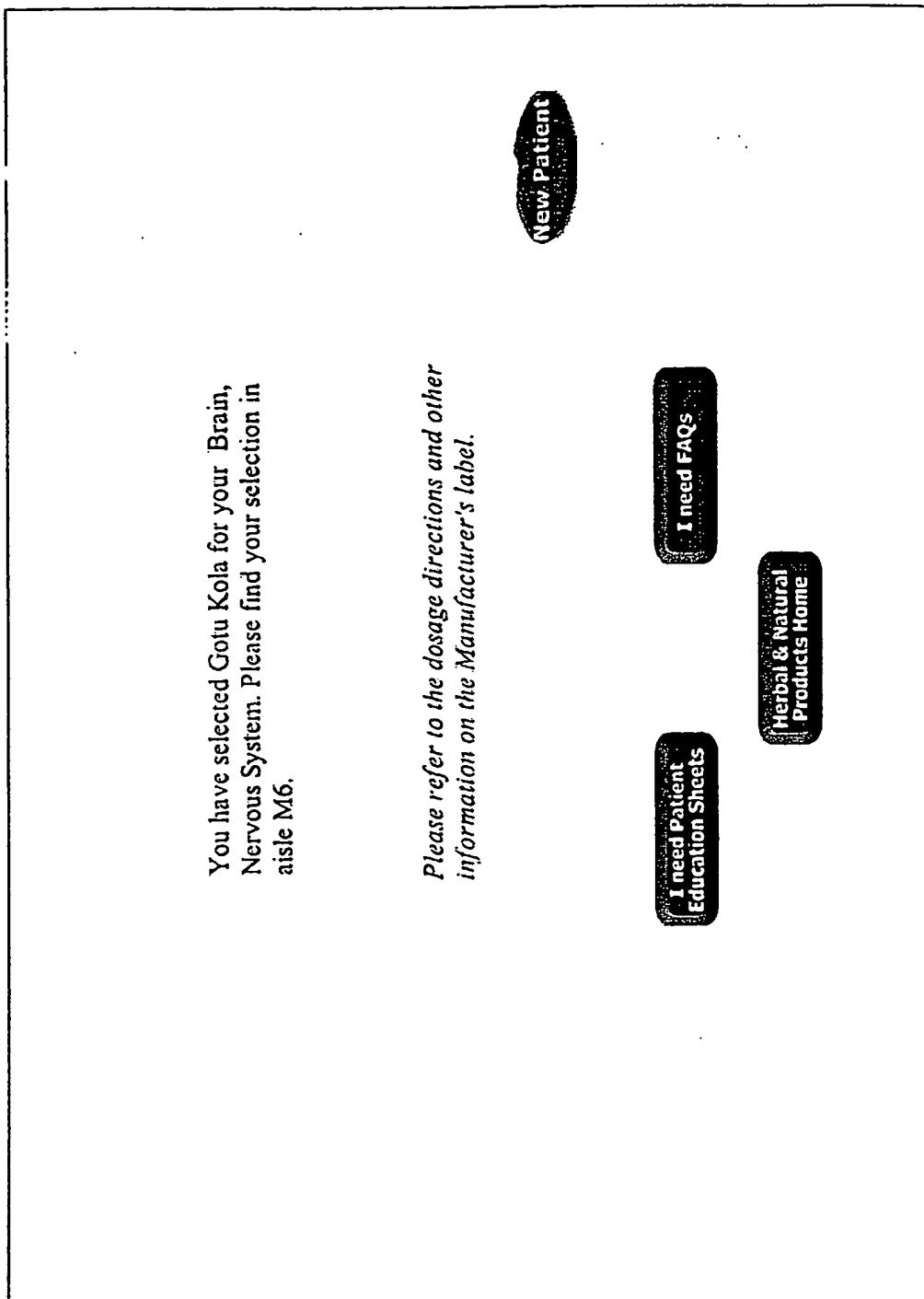


Fig. 15

17/38

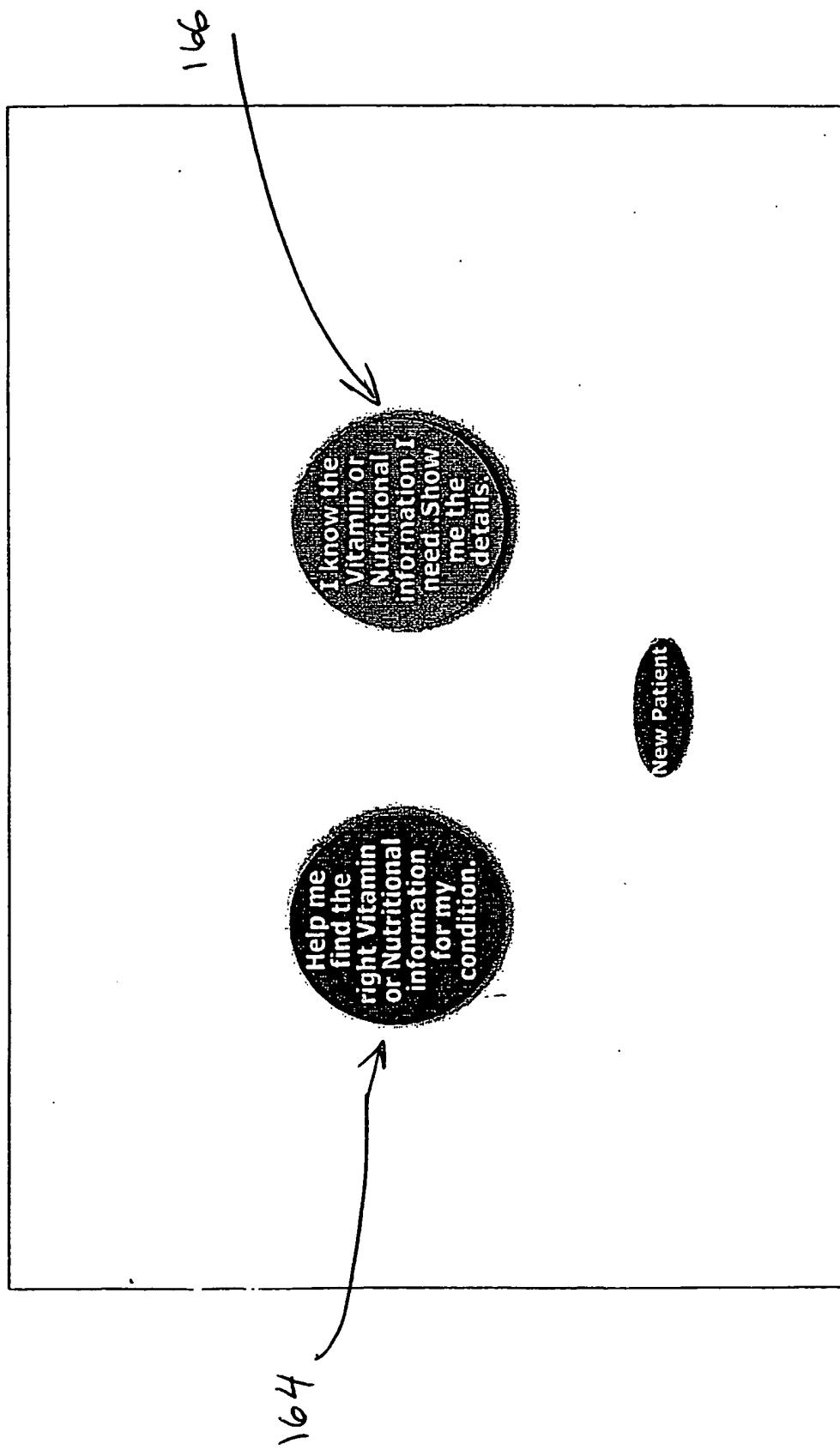


Fig. 16

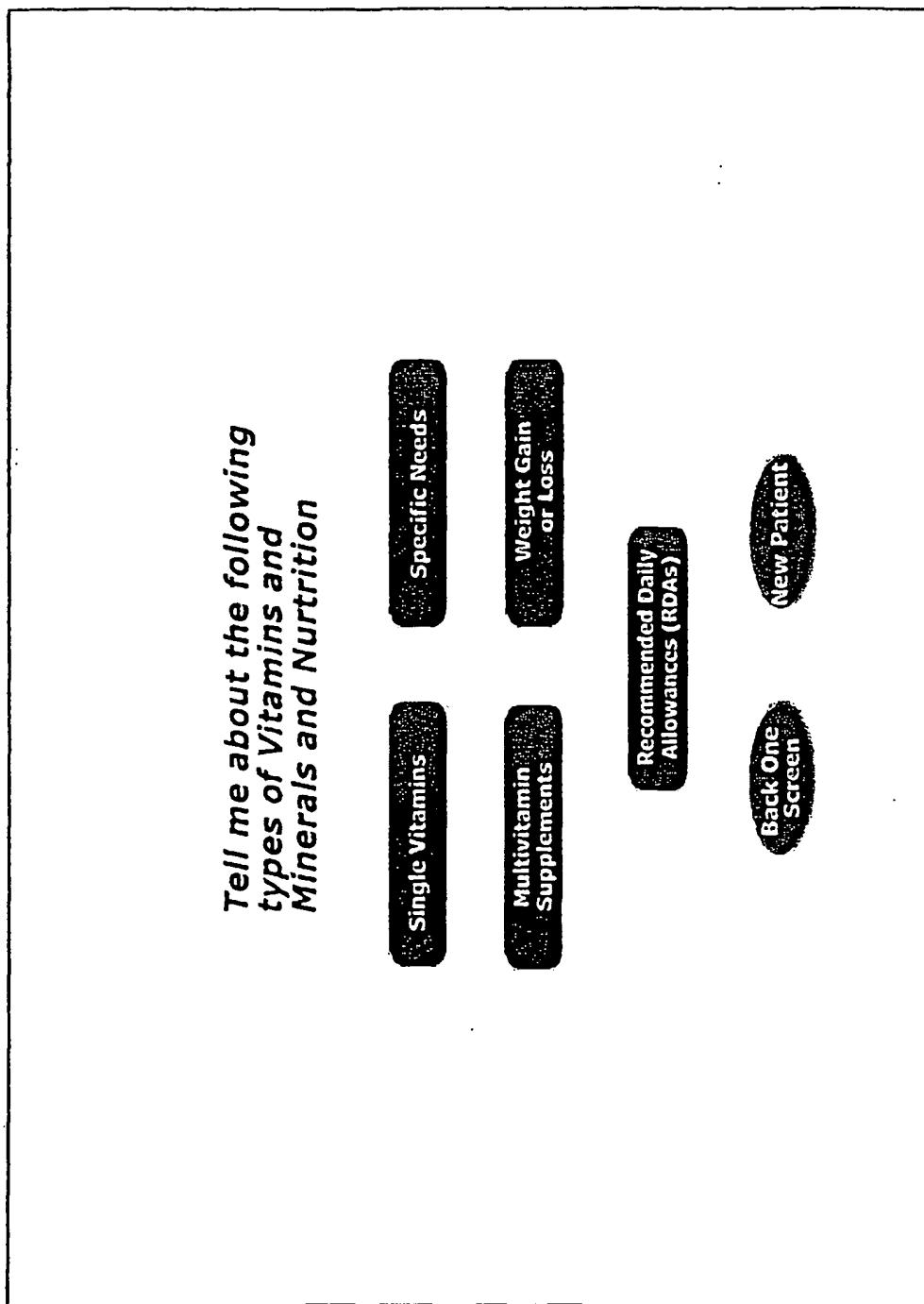


Fig. 17

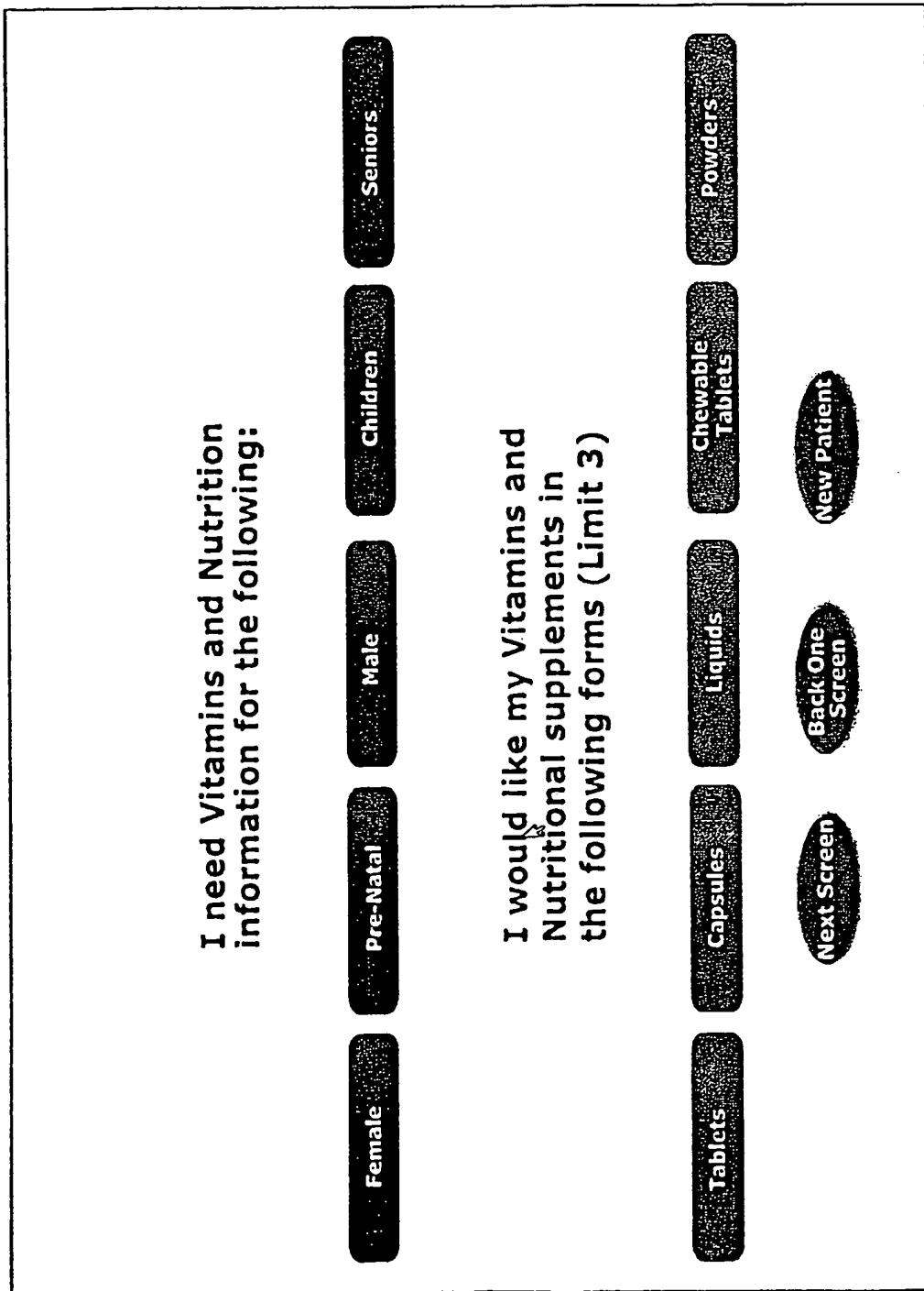


Fig. 18

20/38

Multiple Vitamin Trade Name	A Iu mg	B1 mg	B2 mg	B3 mg	B5 mcg	B6 mg	B12 mcg	C mg	D Iu mg	E Iu mg	Biotin mcg	Calc mg	Fol mcg	Iodine mcg	Iron mg	Magn mg	Phos mg	Zinc mg	Other mg	Pkg Size	Pkg Price	Per Dose	Coupon
Centrum MultiVitamin Liquid	2500	1.5	1.7	30	2	6	60	400	30	300				150	9	2.5		3	0	3	1	\$1.00	
Centrum MultiVitamin Tablets																				120	\$40.00	10.33	
One-A-Day Memory & Concentration Tablets																				30	\$10.00	10.33	
Cholecalciferol Sulfate Capsules																				60	1	10.00	
Cholecalciferol Sulfate Capsules																				30	1	10.00	



Fig. 19

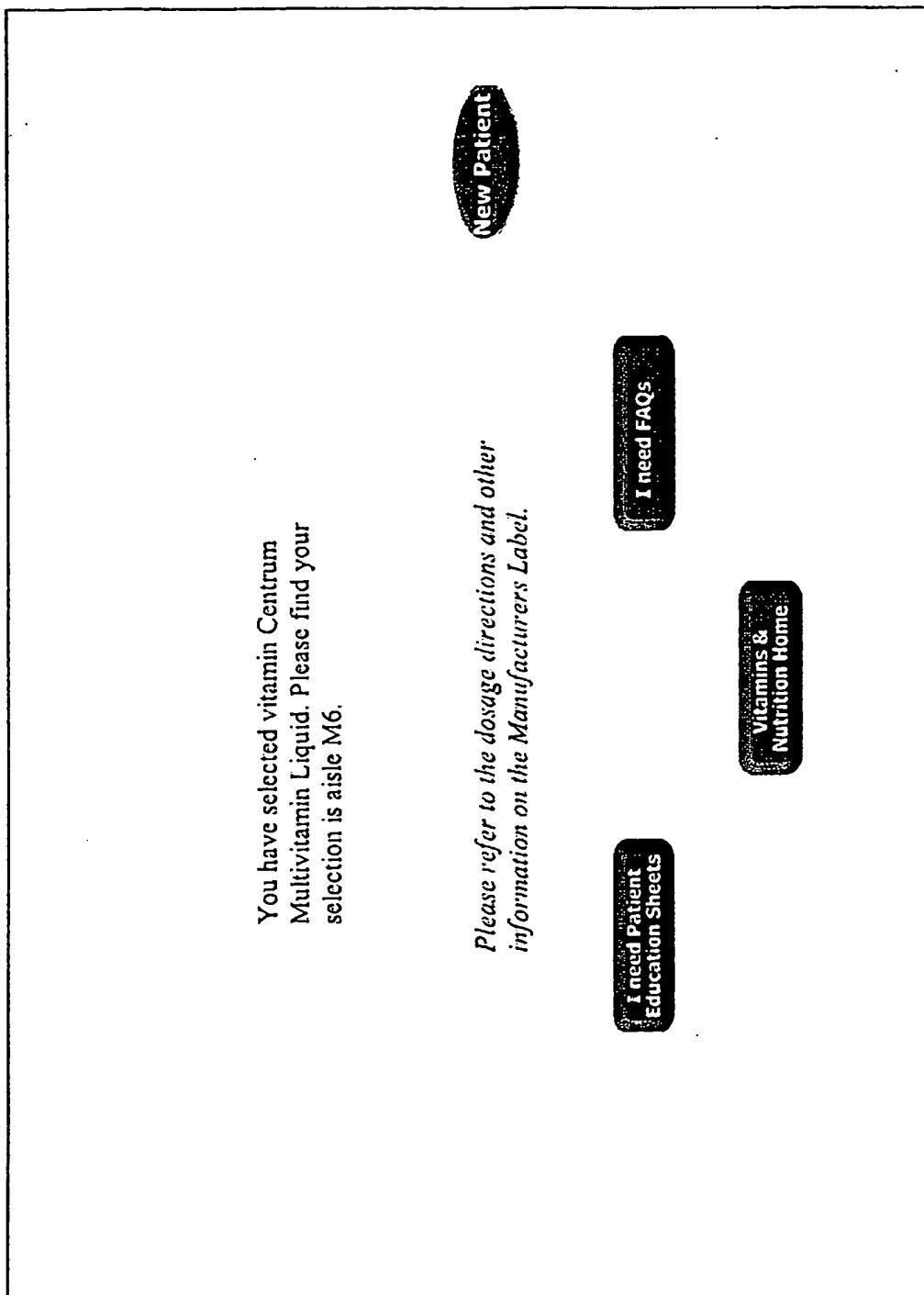


Fig. 20

22/38

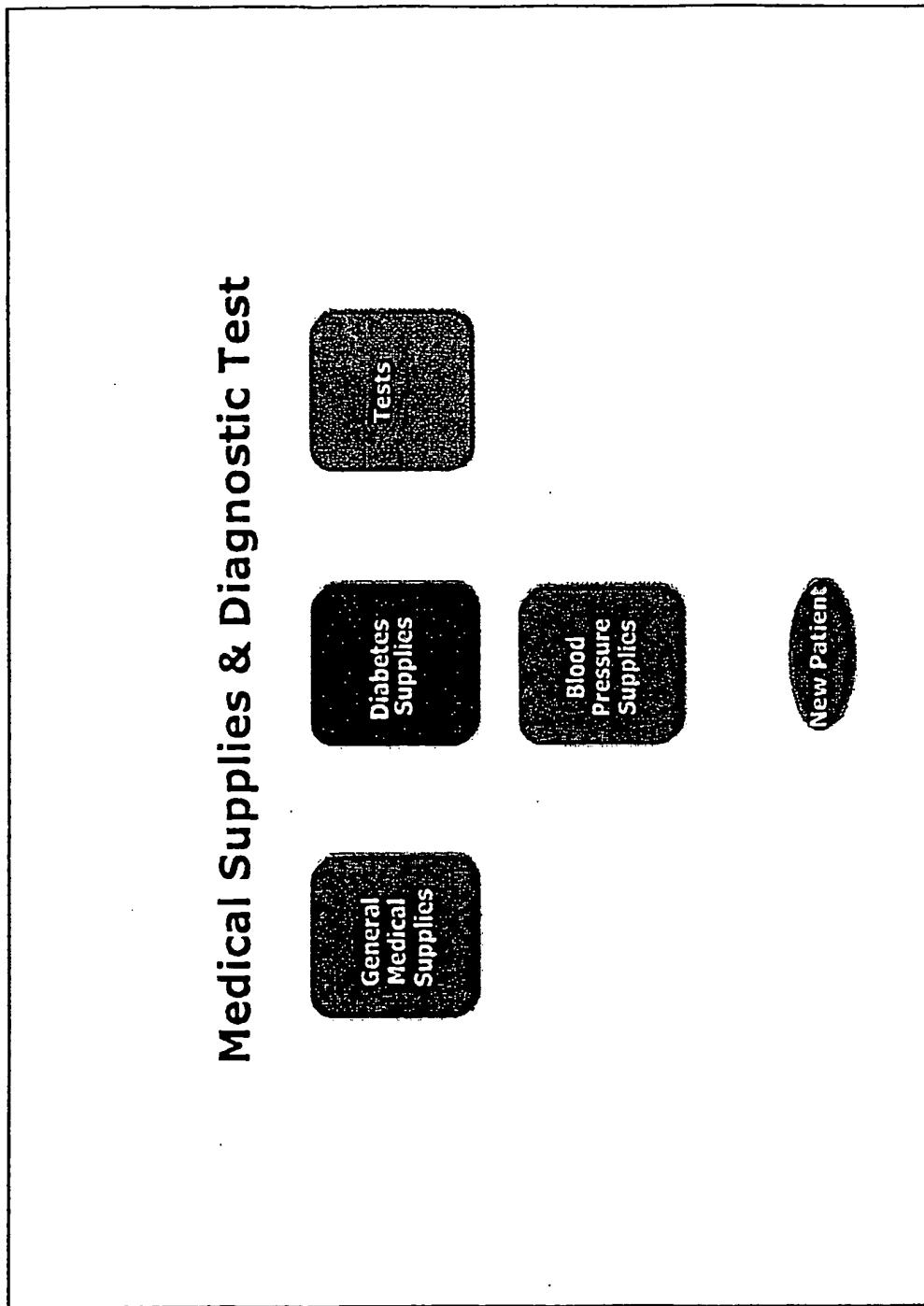


Fig. 21

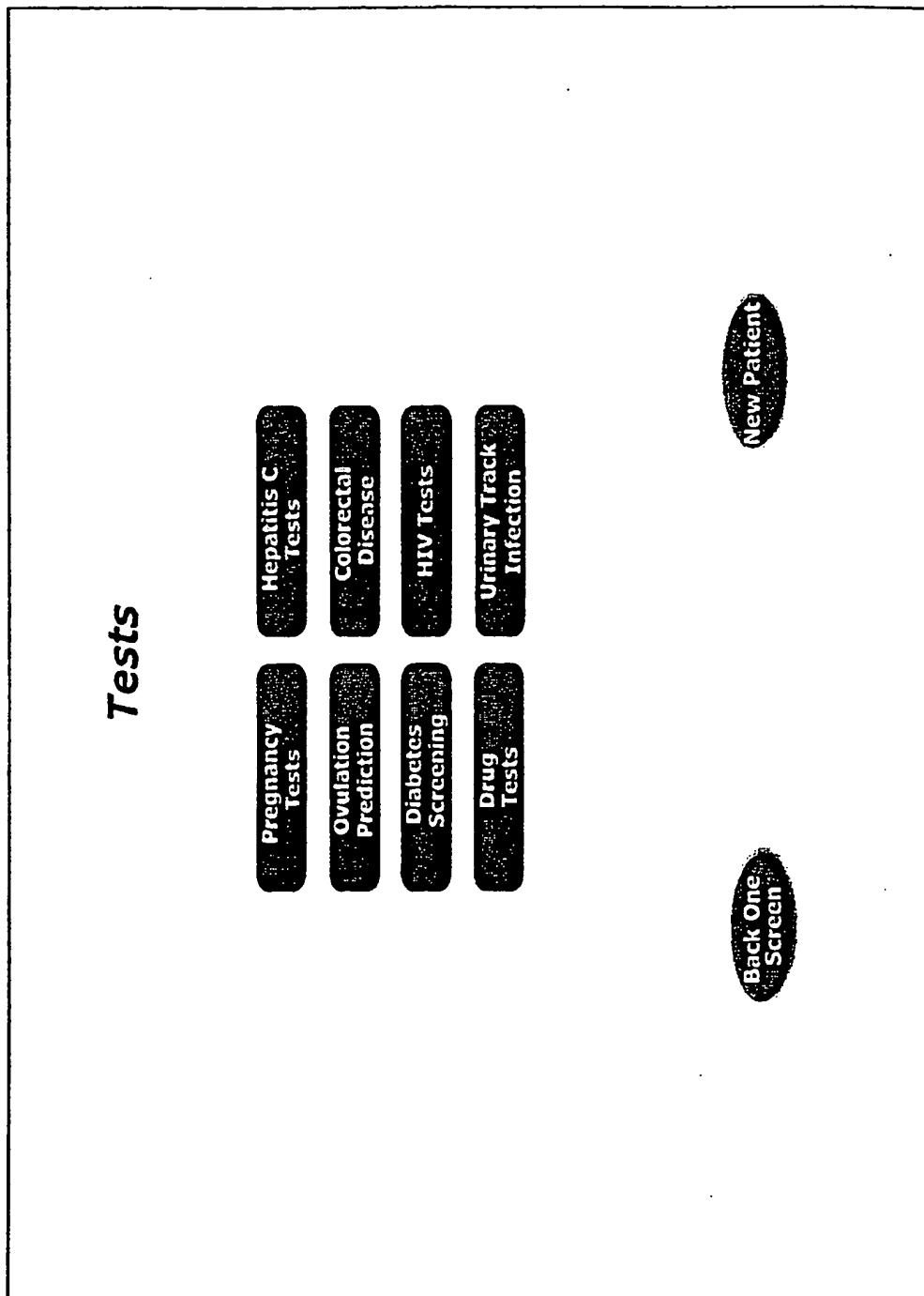


Fig. 22

24/38

Medical Device or Test	Prod. Description	Prod. Function	Model Number	Pkg Size	Pkg Price	Unit Price	Coupon
<u>Spot Pregnancy Test</u>			1	10	\$0.00		
<u>Conform Home Pregnancy Test</u>			1	10	\$1.00		
<u>Conform Home Pregnancy Test</u>			2	10	\$1.00		
<u>Clear Blue Easy One Minute Pregnancy Test</u>			2	10	\$0.00		
<u>Clear Blue Easy One Minute Pregnancy Test</u>			1	10	\$0.00		
<u>First Response One Step Pregnancy Test</u>			2	10	\$1.00		
<u>First Response One Step Pregnancy Test Double Kit</u>			2	10	\$0.00		
<u>Conceive Pregnancy Test</u>			1	10	\$0.00		
<u>Conceive Pregnancy Test</u>			1	10	\$0.00		

Devices & Tests  
Home

Fig 23

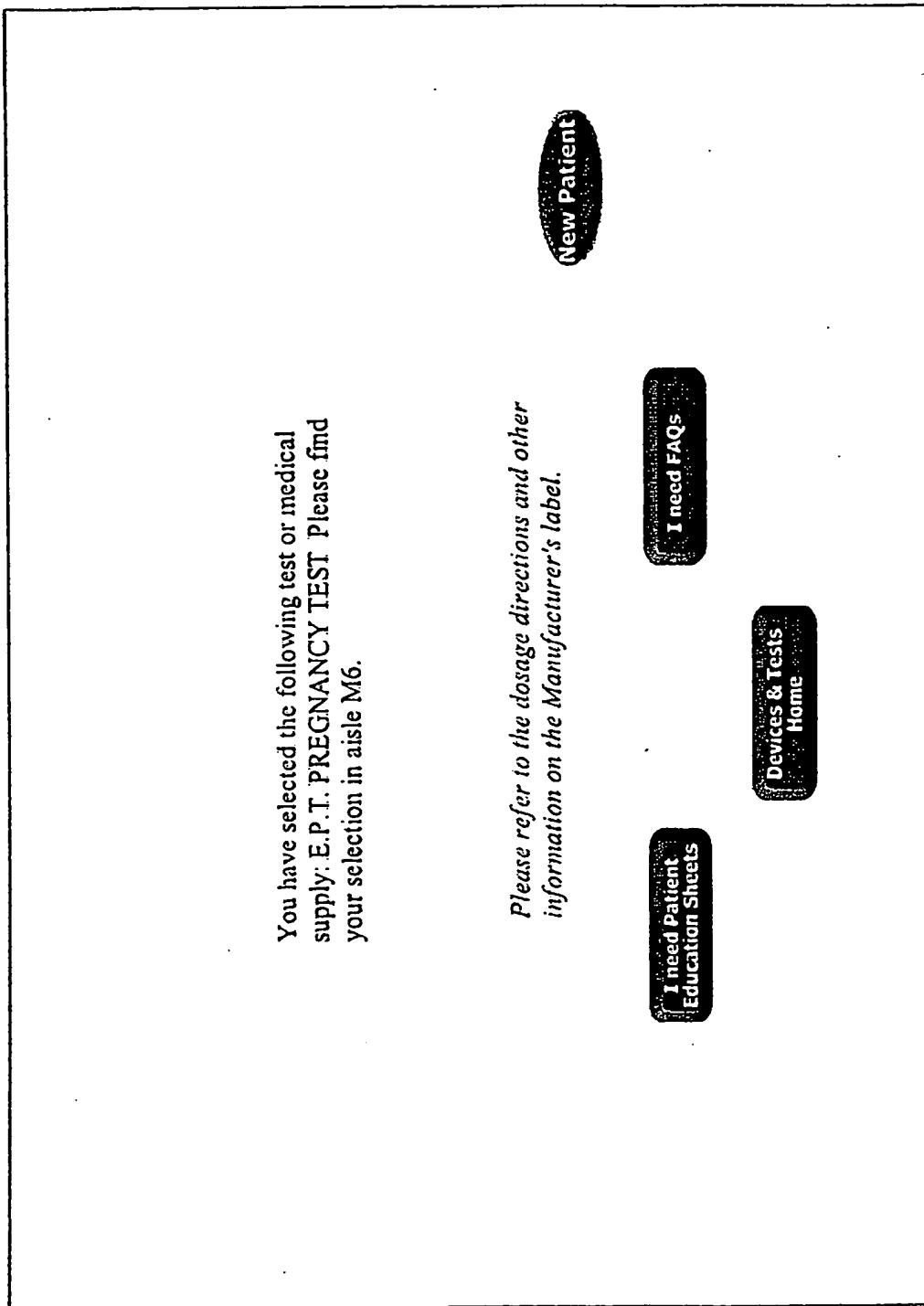


Fig. 24

26/38



Fig. 25

27/38

OTC		Name	INDE	Pkg Size	Kg U
102	4-Way		19810005810	15	3
102	4-Way , Menthol		19810005610	15	3
103	4-Way , Menthol		19810005620	30	3
105	4-Way 12 Hour Decongestant		19810202310	15	3
106	4-Way Saline Moisturizing Mist		19810002650	30	3
107	A+D Diaper Rash Ointment/Zinc oxide/Aloe		00085141002	113	2
108	A+D Original Ointment		00085009601	45	2
109	A+D Original Ointment		00085009602	120	2
201	APAP Suppositories		00182109511	12	1
202	APAP Suppositories		0018270111	12	1
1501	APF Arthritis Pain Formula Maximum Strength		60329271101	40	1
1501	APF Arthritis Pain Formula Maximum Strength		63029271102	100	1
2010	ASA + Antacid Extra Strength Caplets		00182106001	1000	1
				New	Close

Fig. 26

28/38  
210 ↘

OTC	Product Name	Manufacture	Schering-Plough HealthCare P.
	A+D Original Ointment	Description	
ID#	00085009602	Manufacturer Description	Ointment
UPC		Package Size	120 gm
Manufactur		Theapeutic Class	Diaper Rash Products
Age Group	2 to 11	Active Ingredients	
Gender	Male	Indications	
Pre-Age	0	Side Effects	
Post-Age	2	Patient Education	
		Save	<input checked="" type="checkbox"/> Delete
		Duplicate Record	<input type="checkbox"/>

Fig. 27

29/38

herbal	Product Name <b>Feverfew Capsules</b>	Manufacturer <b>Mason Vitamins</b>
NDC	Description <b>Capsule</b>	Manufacturer Description <b>Capsule</b>
11845113805	Package Size <b>60</b>	Package Size <b>60</b>
0PC	Therapeutic Class 12 to 80	Therapeutic Class 12 to 80
Male	Gender Age 120	Gender Age 18
18	Lower Age	Higher Age
120	Higher Age	Lower Age
18	Lower Age	Higher Age
0PC	Duration Record	Duration Record
0PC	Initial Date 01/01/01	Initial Date 01/01/01
0PC	Final Date 01/01/01	Final Date 01/01/01

Fig. 28

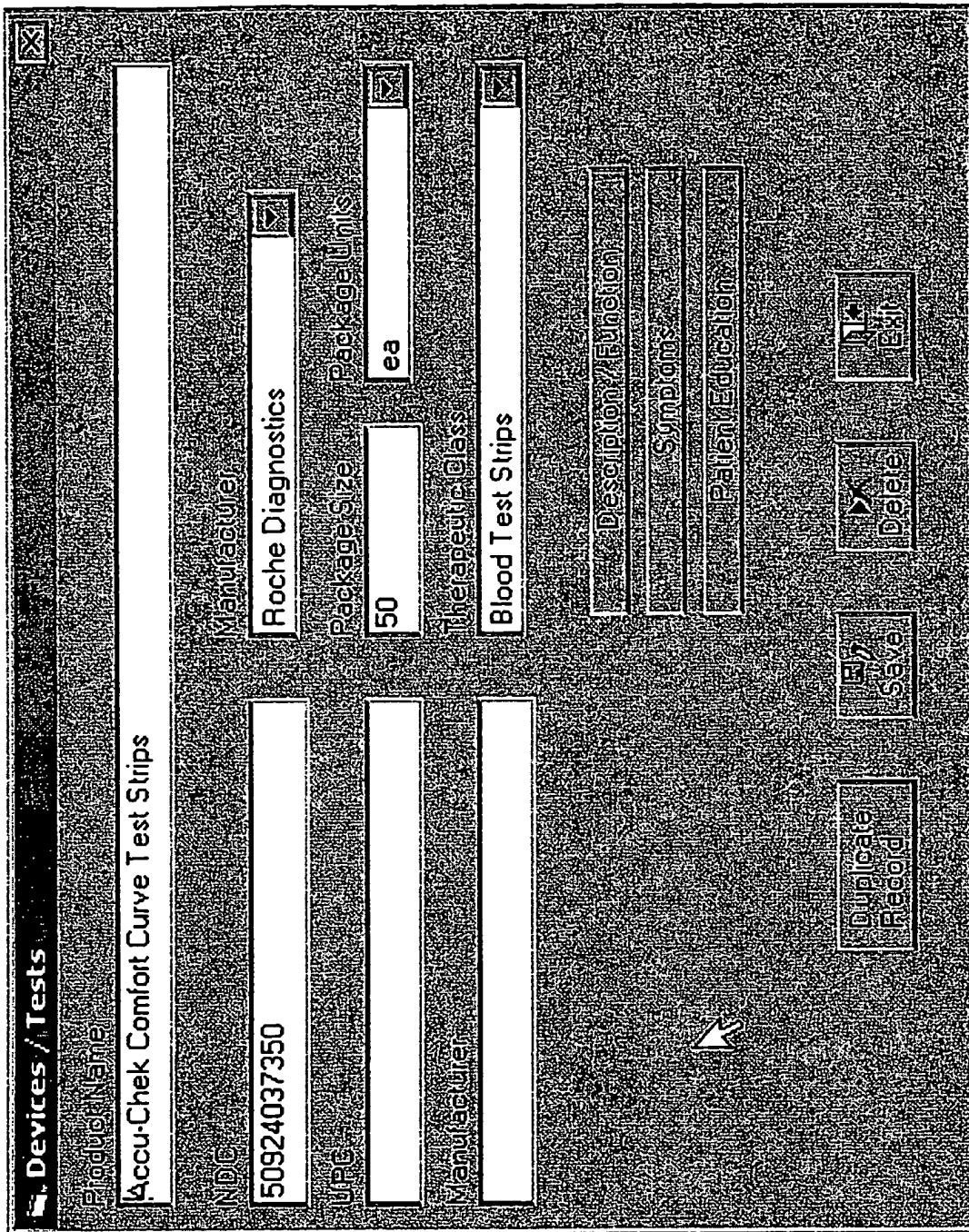


Fig. 29

31/38

Fig. 30

Product Name	Single Vitamin C Chew-C Tablets (Orange)
Product No.	11694097601
UPC	
Manufacturer	Key Company
Package Size	100 ea
Packaged Units	
Dosage Form	
Age Group	12 to 80
Weight	
Side Effects	
Contraindications	
Warnings	
FAQ	
Patient Education Sheet	
Product Absent/Ingredients	
Active Ingredients	
Deactive Ingredients	
Drug Interactions	
Regulatory Status	
Product Summary	

Fig. 31

Multi-Vitamin	Reduced Niacin	MelatoneX / Vitamin B Timed Release Tablets	Sunsource International Company
47046600000	60	ea	Packaging Unit
12	12 to 80	Age Group	Weight
1	12	Condition	Age
		Conditions	FAQ
Patient Evaluation Sheet			
Vitamin A		Phosphorus	
Vitamin C		Zinc	
Vitamin D		Other	
Vitamin E		Delete	
Vitamin K		Duplicate Record	
Biotin		Server	
Folic Acid			
Inositol			
Iron			
Magnesium			
Niacin			
Pantothenic Acid			
Riboflavin			
Thiamine			
Vitamin B5			
Vitamin B6			
Vitamin B12			
Vitamin B1			
Vitamin B2			
Vitamin B3			

Fig. 32

34/38

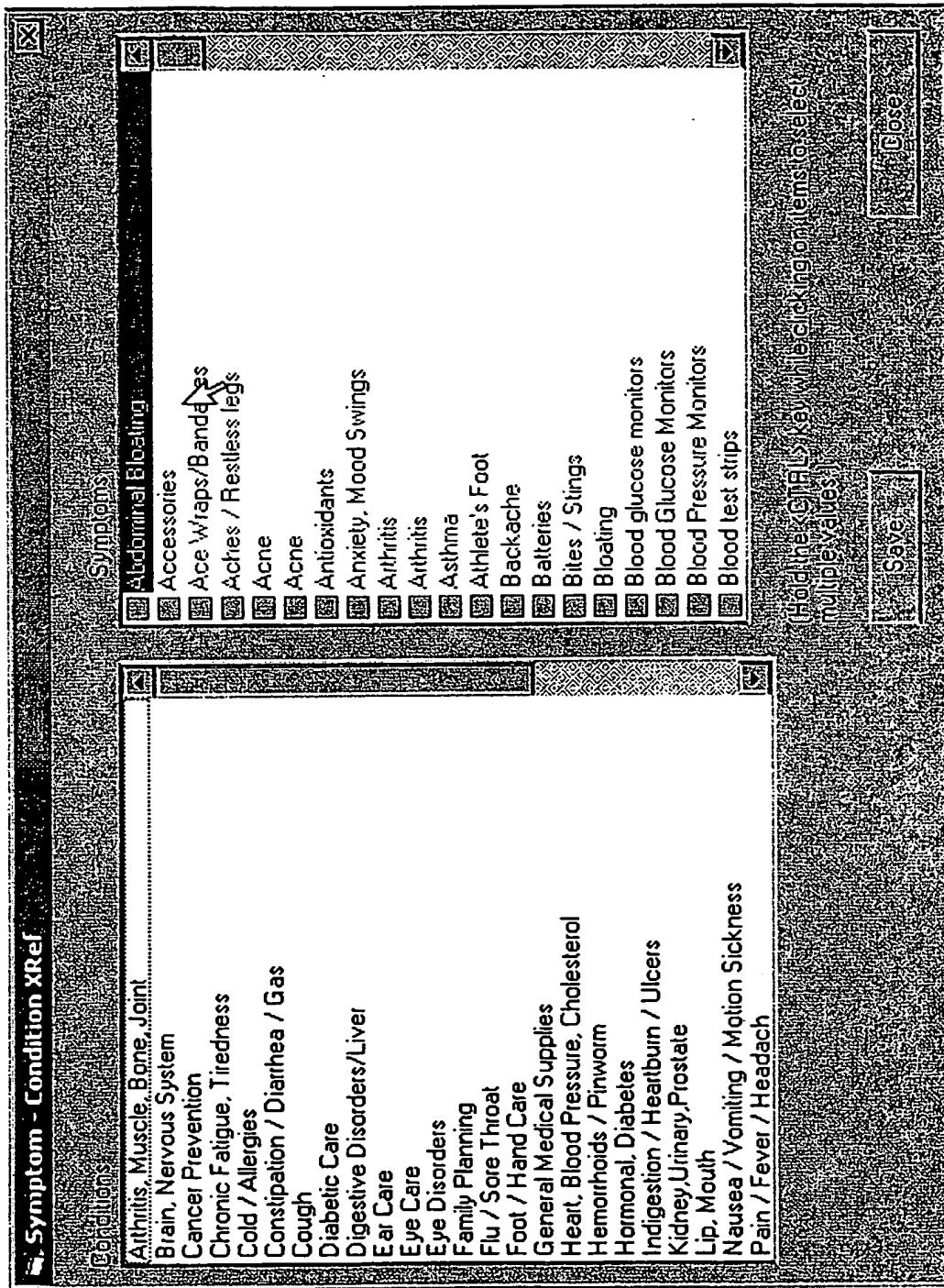


Fig. 33

35/38

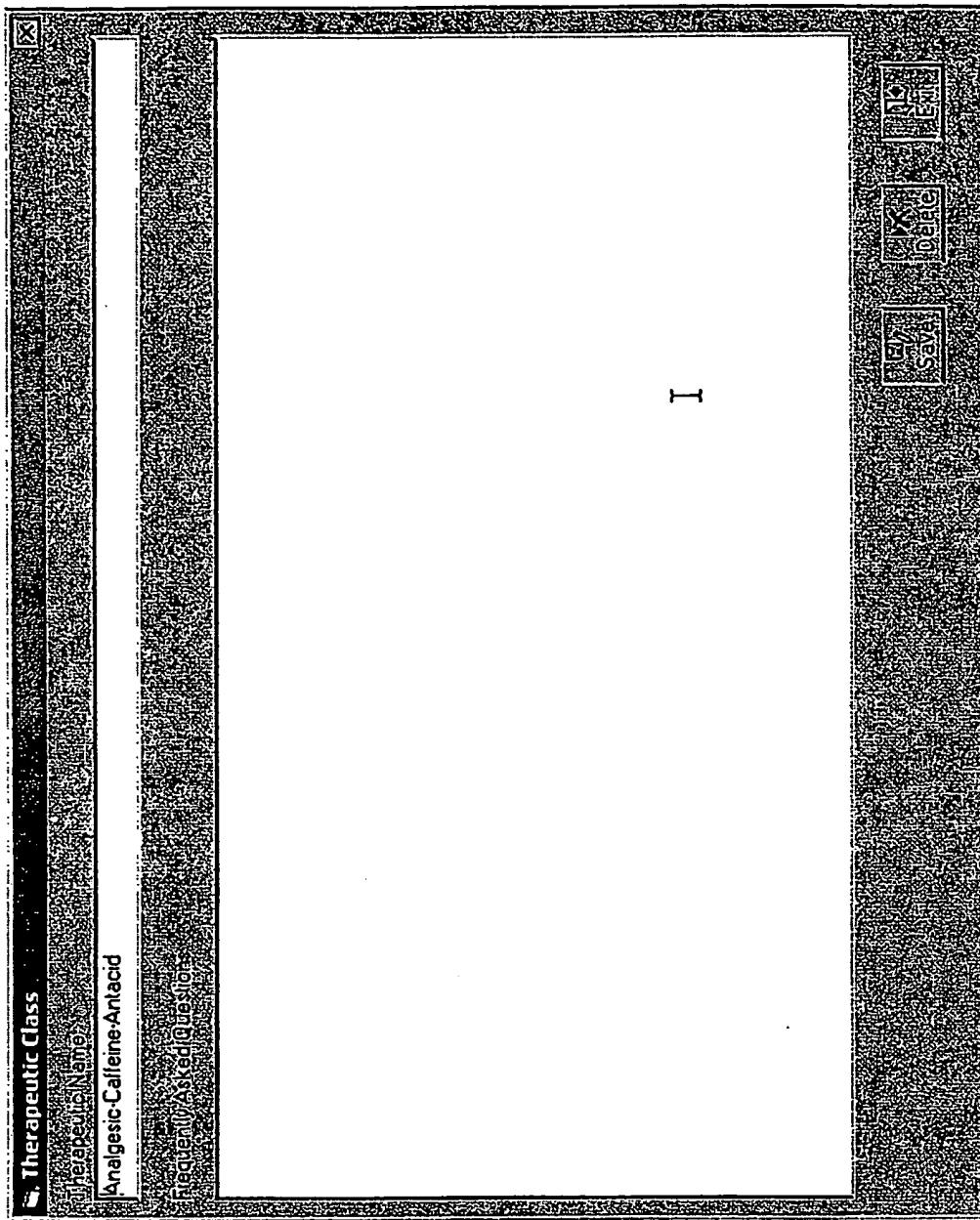


Fig. 34

Keywords		INGREDIENTS									
1	Glycerin USP										
2	Acetaminophen										
3	Alcloxa [Aluminum Chlorhydr oxy Allantoinate]										
4	Allantoin										
5	Aloe										
6	Alpha-galactosidase Enzyme										
7	Aluminum hydroxide										
8	Aluminum hydroxide gel										
9											
10											
11											

Fig. 35

Fig. 36

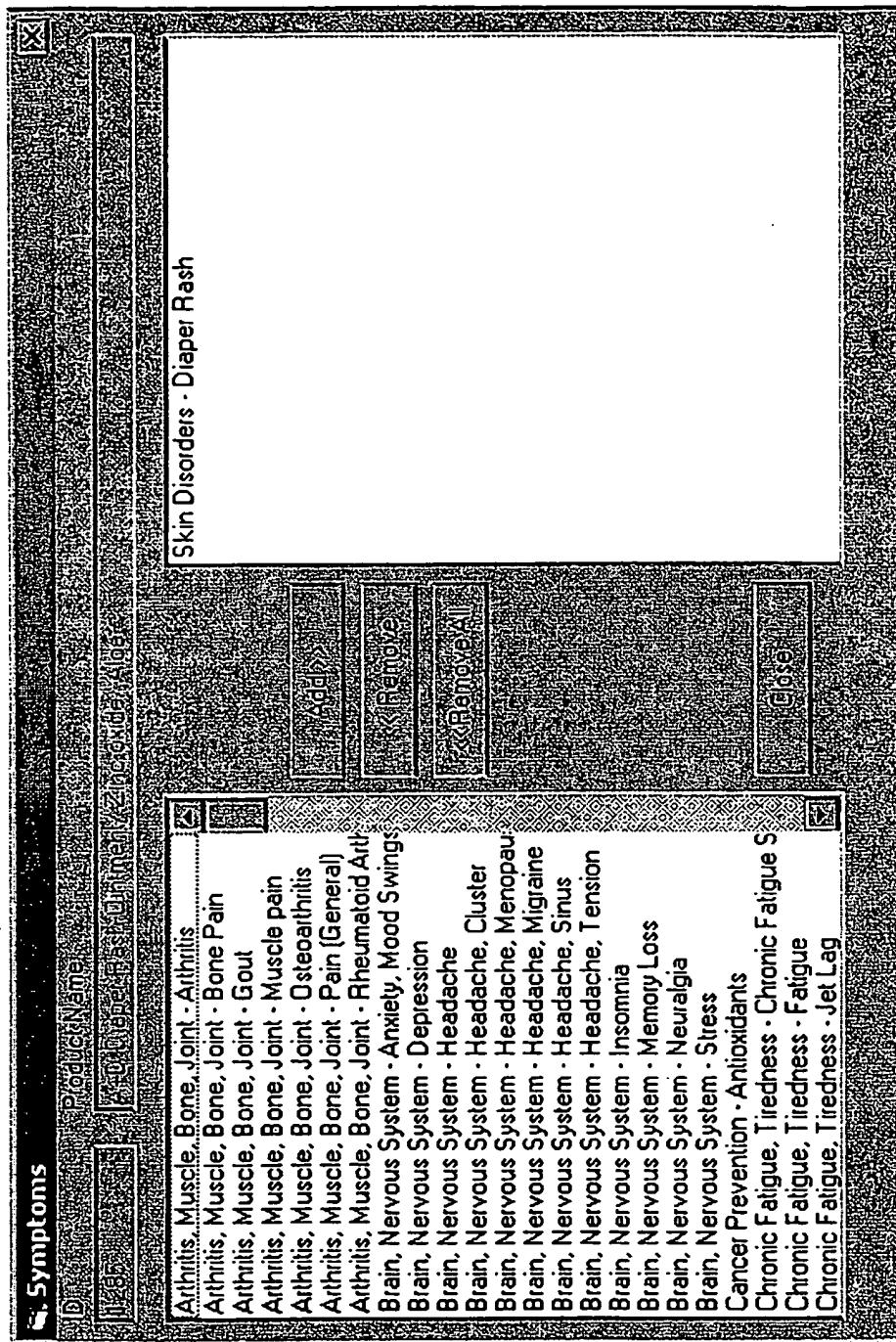


Fig. 37

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) :G06F 17/60

US CL :705/27, 26, 2, 3

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/27, 26, 2, 3

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST, DIALOG. Search terms: drug, medicine, medication, medical product or device, recommend, select, choose, symptom.

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,299,121 A (BRILL et al.) 29 March 1994, see Abstract; Figure 4; column 1, line 5, through column 2, line 50; column 8, lines 38-46.	1, 7, 9-13, 15-16 -----
Y	US 5,758,095 A (ALBAUM et al.) 26 May 1998, see Abstract; column 3, lines 21-29.	2-6, 8, 14, 17-20
A	US 5,583,758 A (MCILROY et al.) 10 December 1996, see entire document.	2-4, 8, 17
A	US 5,594,638 A (ILIFF) 14 January 1997, see entire document.	1-20
X	JP 5-89150 A (SHIRAI) 09 April 1993, see entire document.	1,15 -----
Y		2-14, 16-20

Further documents are listed in the continuation of Box C.  See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

27 JULY 2001

Date of mailing of the international search report

20 AUG 2001

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

NICHOLAS ROSEN

Telephone No. (703) 305-0753

*James R. Matthews*

## INTERNATIONAL SEARCH REPORT

Int'l application No.
PCT/US01/14209

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 10-187846 A (IKEDA) 21 July 1998, see entire document.	1, 8, 10, 15-16 -----
---		
Y		2-7, 9, 11-14, 17-20
A	ANONYMOUS, Lancet, Vol. 347, No. 9009, p. 1127, 27 April 1996, see entire document.	1-20
Y	Microsoft Press Computer Dictionary, 1997, see page 327, definition of network, and page 472, definition of touch screen.	5-6, 14, 18-20
A	ANONYMOUS, "OTC Reps to Train to Professional Standard," Chemist & Druggist, 04 January 1997, see entire document.	1-20
X	ANONYMOUS, "Pill Pusher Pushes Regulators' Limits," Business North Carolina, Vol. 19, No. 4, p. 12, see entire document.	1, 14-15, 18-19 -----
---		
Y		2-13, 16-17, 20
X	COHEN, B., "PlanetRx.com Helps consumers Fight Cold and Flu Season with New Interactive Cough & Cold Advisor," PR Newswire, p. 6541, 07 January 2000, see entire document.	1, 8, 10, 14-16, 19 -----
---		
Y		2-7, 9, 11-13, 17-18, 20
X	ANONYMOUS, "Boots planning Net Assault to Take Top Spot in Online Health," Independent, 06 March 2000, page 14, see entire document.	1, 14-16 -----
---		
Y		2-13, 17-20
X	ANONYMOUS, "OnHealth.com Unveils New Vertical Channel Structure to provide Easy Access To Site's Broad Spectrum of Trusted Healthcare Information, Services and Solutions," PR Newswire, 22 March 2000, see entire document.	1, 11, 14-16, 18-19 -----
---		
Y		2-10, 12-13, 17, 20

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.